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Water Resources Data for Nebraska, Water Year 1980

(U.S.) Geological Survey
Lincoln, NE

May 81

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March 3, 1849

MARCH 1st 1867

Water Resources Data for Nebraska

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NE-80-1

WATER YEAR 1980

Prepared in cooperation with the Nebraska Department of Water Resources, the Conservation and Survey Division of the University of Nebraska, the Nebraska Natural Resources Commission, and with other State and Federal agencies

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CALENDAR FOR WATER YEAR 1980

1979

OCTOBER

S	M	T	W	T	F	S
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1980

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i

UNITED STATES DEPARTMENT OF THE INTERIOR

JAMES G. WATT, Secretary

GEOLOGICAL SURVEY

Doyle G. Frederick, Acting Director

For information on the water program in Nebraska, write to:
District Chief, Water Resources Division
U. S. Geological Survey
406 Federal Building
100 Centennial Mall, North
Lincoln, Nebraska 68508

1981

II

PREFACE

In the act that established the U.S. Geological Survey more than a century ago, the agency was charged by Congress with the responsibility for "...classification of the public lands, and examination of the geologic structure, mineral resources, and products of the national domain." This charge was simple recognition of the principle that factual information is essential to sound development and management decisions involving natural resources. In keeping with this principle, the Water Resources Division of the Survey publishes annually, by district, basic records for water resources thought to be of particular usefulness to the public and to the scientific community.

General direction for preparation of this report and for similar reports prepared by other districts was given by Philip Cohen, Chief Hydrologist, U.S. Geological Survey, and by R. J. Dingman, Assistant Chief Hydrologist for Scientific Publications and Data Management.

This report on "Water-Resources Data for Nebraska" was prepared by personnel of the Nebraska District of the Water Resources Division under the supervision of W. M. Kastner, District Chief, and Alfred Clebsch, Jr., Regional Hydrologist, Central Region. Most of the records were obtained through cooperation with agencies of the State of Nebraska and with other Federal agencies.

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[Letter after station name designates type of data: (d) discharge, (c) chemical, (b) biological, (m) microbiological, (t) water temperature, and (s) sediment]

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WATER RESOURCES DATA FOR NEBRASKA, 1980

INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with State agencies, obtains a large amount of data pertaining to the water resources of Nebraska each water year. These data, accumulated during many water years, constitute a valuable data base for developing an improved understanding of the water resources of the State. To make these data readily available to interested parties outside the Geological Survey, the data are published annually in this report series entitled "Water Resources Data for Nebraska."

This report includes records on both surface and ground water in the State. Specifically, it contains: (1) Discharge records for 158 streamflow-gaging stations, for 53 partial-record or miscellaneous streamflow stations, and for 5 crest-stage, partial-record streamflow stations: (2) stage and content records for 10 lakes and reservoirs; (3) water-quality records for 58 streamflow-gaging stations, for 44 ungaged streamsites, and for 192 wells; and (4) water-level records for 60 observation wells. Records included for stream stages and for ground-water levels are only a small fraction of those obtained during the water year.

This series of annual reports for Nebraska began with the 1961 water year with a report that contained only data relating to the quantities of surface water. For the 1964 water year, a similar report was introduced that contained only data relating to water quality. Beginning with the 1975 water year, the report format was changed to present, in one volume, data on quantities of surface water, quality of surface and ground water, and ground-water levels.

Prior to introduction of this series and for several water years concurrent with it, water-resources data for Nebraska were published in U.S. Geological Survey Water-Supply Papers. Data on stream discharge and stage and on lake or reservoir contents and stage, through September 1960, were published annually under the title "Surface-Water Supply of the United States, Parts 6A and 6B." For the 1961 through 1970 water years, the data were published in two 5-year reports. Data on chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Waters of the United States," and water levels for the 1935 through 1974 water years were published under the title "Ground-Water Levels in the United States." The above mentioned Water-Supply Papers may be consulted in the libraries of the principal cities of the United States and may be purchased from Distribution Branch, Text Products Section, U.S. Geological Survey, 604 South Pickett Street, Alexandria, VA 22304.

Publications similar to this report are published annually by the Geological Survey for all States. These official Survey reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report NE-80-1." For archiving and general distribution, the reports for 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on back of title page or by telephone (402) 471-5082.

Cooperation

The U.S. Geological Survey and agencies of the State of Nebraska have had cooperative agreements for the collection of water-resource records since 1930. Organizations that assisted in collecting the data in this report through cooperative agreement with the Survey are: Nebraska Department of Water Resources, J. Michael Jess, Acting Director; Conservation and Survey Division, University of Nebraska-Lincoln, Vincent H. Dreeszen, Director; Nebraska Natural Resources Commission, Dayle E. Williamson, Executive Secretary; Nebraska Department of Environmental Control, Dan T. Drain, Director; and Big Blue River Compact Administration.

Assistance with funds or services was given by the U.S. Army Corps of Engineers in collecting records for 27 streamflow-gaging stations and 2 daily sediment stations; by the U.S. Environmental Protection Agency in collecting records for 2 water-quality stations; and by the Water and Power Resources Service (formerly U.S. Bureau of Reclamation) in collecting records for 2 streamflow-gaging stations and in providing elevations or capacity tables for 8 reservoir stations.

The following organizations aided in collecting records: Central Nebraska Public Power and Irrigation District, Nebraska Public Power District, and Loup River Public Power District.

Acknowledgments

Collection, review, and assembly of the information in this report involved the efforts of many people, both within and outside the district staff. Principal responsibility for assembly of the report was assumed by G. B. Engel who, together with E. K. Steele, Jr., reviewed records pertaining to surface-water flows and volumes. Records for water quality were assembled and reviewed by R. A. Engberg, and those for ground-water levels were assembled and reviewed by M. S. Johnson. Data collection and computation of records were mostly under the direct supervision of field office chiefs Maynard Kubicek, C. R. Liggett, and H. D. Stephens, except those in the panhandle part of the State that were collected and computed by personnel of the Nebraska Department of Water Resources. D. E. Schild supervised entry of the data into the computer files and provided other assistance.

OVERVIEW OF 1980 WATER YEAR

The 1980 water year in Nebraska was characterized by extreme variations in precipitation. Precipitation data from published reports of the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Weather Service, for the eight divisions in Nebraska are shown in the following table.

Table 1.--Precipitation and departures from normal, in inches

Division	October - March		April - September		1980 water year	
	Precipitation	Departure from normal	Precipitation	Departure from normal	Precipitation	Departure from normal
Panhandle	5.73	+ 2.16	9.26	- 4.54	14.99	- 2.38
North Central	7.13	+ 2.80	10.81	- 6.28	17.94	- 3.48
Northeast	8.26	+ 2.23	13.41	- 6.41	21.67	- 4.18
Central	7.68	+ 3.09	10.69	- 7.72	18.37	- 4.63
East Central	10.08	+ 3.48	16.97	- 4.79	27.05	- 1.31
Southwest	7.11	+ 3.20	12.43	- 3.00	19.54	+ .20
South Central	8.52	+ 3.53	13.29	- 5.63	21.81	- 2.10
Southeast	12.54	+ 5.12	14.94	- 8.54	27.48	- 3.42

Percentage of normal precipitation is shown in figure 1 for the eight divisions. All divisions had greater than normal precipitation for the first 6 months of the water year, October through March, and less than normal precipitation for the last 6 months, April through September. All divisions except the Southwest had less than normal precipitation for the year.

Streamflow

The lack of moisture during the growing season, April through September, resulted in less than normal streamflow throughout the State. Intensive irrigation withdrawals because of the hot, dry summer contributed to the less than normal flows in some areas. Monthly mean discharges during the 1980 water year at representative stations are plotted against the long-term monthly means in figure 1. The period of record used for the long-term mean at some stations is from the start of the last known storage or regulation. In general, the streamflow reflects the precipitation patterns--greater than or near normal flows for the first 6 months of the water year and less than normal flows for the last 6 months.

Greater than normal flows occurred in the North Platte, South Platte, and Platte Rivers from April through June because of snowmelt in Colorado and Wyoming and releases from upstream reservoirs. However, there were no significant flood flows. Peak discharges for the 1980 water year are contrasted in table 2 with those for the periods of record for stations on these streams. Peak flows for all but the two North Platte River stations (near Keystone and near Sutherland) occurred in the short period from April 27 to June 5. These two stations are downstream from Lake McConaughy and flow is entirely dependent on releases from this reservoir. Peak flows at these stations occurred during July and August.

Only records beginning with the 1958 water year were used for computing peak discharges shown in table 2 for stations on the North Platte River because that is when storage in Glendo Reservoir, Wyo., began. The peak flows and return periods for stations on the North Platte River, a stream with numerous controls, stand out in contrast to those for stations on the South Platte River, a stream with relatively little control on peak flows.

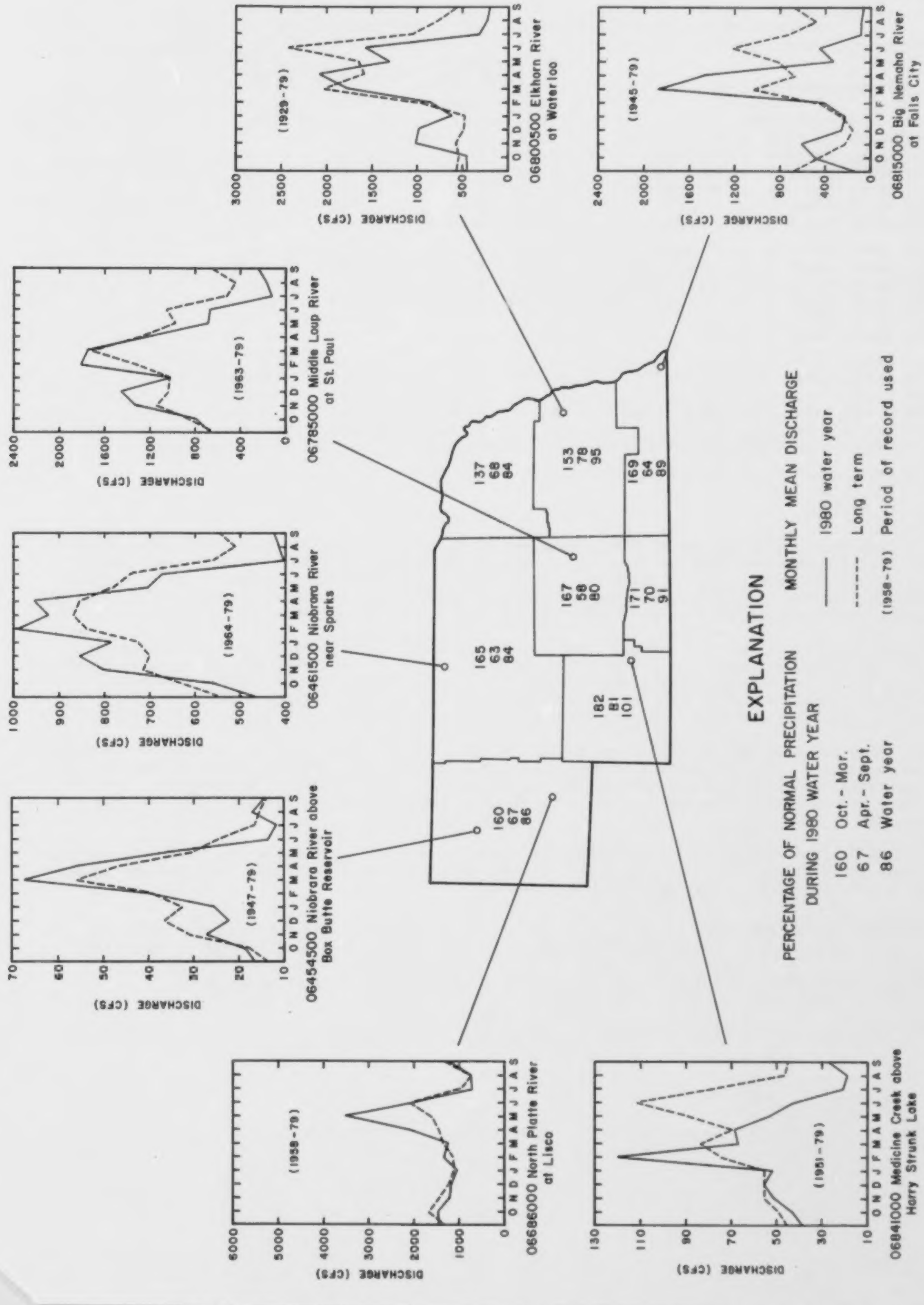

06454500 Niobrara River above Box Butte Reservoir
(1947-79)
06461500 Niobrara River near Sparks
(1964-79)
06785000 Middle Loup River at St. Paul
(1963-79)
06800500 Elkhorn River at Waterloo
(1929-79)
06815000 Big Nemaha River at Falls City
(1945-79)
06686000 North Platte River at Lisco
(1938-79)
06841000 Medicine Creek above Harry Strunk Lake
(1951-79)
DISCHARGE (CFS)
O N D J F M A M J J A S
160 67 86
165 63 84
137 68 84
153 78 95
167 58 80
182 81 101
171 70 91
169 64 89
EXPLANATION
PERCENTAGE OF NORMAL PRECIPITATION DURING 1980 WATER YEAR
160 Oct. - Mar.
67 Apr. - Sept.
86 Water year
MONTHLY MEAN DISCHARGE
1980 water year
Long term
(1958-79) Period of record used

Figure 1.--Comparison of 1980 water-year precipitation and streamflow to long-term means.

Table 2.--Comparison of peak discharge for the 1980 water year with those for period of record for stations on the North Platte, South Platte, and Platte Rivers

Station identification	Peak discharge, 1980 water year		Peak discharge, period of record[1]		Approximate return period, 1980 peak discharge (yr)
	Ft³/s	Date	Ft³/s	Date	
06674500 North Platte R. at WY-NE line	3,470	5- 3-80	9,860	6- 6-71	4
06679500 North Platte R. at Mitchell	4,400	5-24-80	12,200	6- 2-71	5
06682000 North Platte R. nr. Minatare	4,420	5-24-80	14,900	6- 2-71	4
06684500 North Platte R. at Bridgeport	5,160	5-25-80	16,400	6- 3-71	4
06686000 North Platte R. at Lisco	4,480	5-26-80	13,200	6- 3-71	3
06687500 North Platte R. at Lewellen	4,810	5-26-80	13,500	6- 4-71	4
06690500 North Platte R. nr. Keystone	3,630	7-13-80	8,850	6-10-71	4
06691000 North Platte R. nr. Sutherland	2,210	8- 9-80	9,090	6- 8-71	2
06693000 North Platte R. at North Platte	2,380	4-27-80	9,580	6-10-71	2
06764000 South Platte R. at Julesburg, CO	13,200	5-21-80	37,600	6-20-65	9
06765500 South Platte R. at North Platte	13,500	5-22-80	37,100	6- 3-35	9
06766000 Platte River at Brady	14,300	5-23-80	18,600	5-14-73	6
06766500 Platte River near Cozad	13,300	5-10-80	18,400	5-29-73	5
06768000 Platte River near Overton	14,600	5-25-80	37,600	6- 5-35	5
06770000 Platte River near Odessa	14,400	5-26-80	22,700	6-24-47	5
06770500 Platte River near Grand Island	13,400	6- 4-80	30,000	6- 6-35	4
06774000 Platte River near Duncan	15,500	6- 5-80	44,100	6-23-05	5

[1] 1950-80 water years for all stations on the North Platte River.

The Loup River basin was one of the drier areas of the State during the 1980 water year. Release of water to irrigators from Sherman Reservoir in the Middle Loup River basin was halted temporarily on August 2 for the second time in the history of the reservoir (the other time was in 1974) because of lack of storage water. A reservoir content of 9,450 acre-ft on August 2, 1980, was the smallest since appreciable storage was attained following closure of the dam in 1960.

Monthly mean discharges for station 06686000, North Platte River at Lisco, do not reflect the local precipitation patterns, as its flow is dependent on releases from upstream reservoirs in Wyoming. Releases from the upstream reservoirs began during April to make room for the greater than normal snowmelt flows expected. These early releases account for the very dissimilar shape of the 1980 monthly mean discharge graph as compared to the long-term mean monthly graph for the Lisco station.

The 7-day low flow for the 1980 water year is compared to the 7-day 10-year low flow for selected stations in table 3. For the 1980 water year, 7-day low flow was less than the 7-day 10-year low flow at three stations: Niobrara River near Sparks, Middle Loup River at St. Paul, and Medicine Creek above Harry Strunk Lake; 7-day low flow was only slightly greater than the 10-year 7-day low flow at Waterloo.

Minimum daily discharge during the 1980 water year for Middle Loup River at St. Paul and Medicine Creek above Harry Strunk Lake reached new lows for the period of record. Record low flows during the 1980 water year also occurred at the following stations:

06784000	South Loup River at St. Michael
06792400 06793000	Sum: Loup R. power canal near Genoa Loup River near Genoa
06798300	Clearwater Creek near Clearwater
06799000	Elkhorn River near Norfolk
06799080	Willow Creek near Foster
06835500	Frenchman Creek at Culbertson
06840000	Fox Creek at Curtis
06852000	Elm Creek at Amboy
06883570	Little Blue River near Alexandria

Table 3. Comparisons of 1980 water year low flows and minimum daily flows at selected stations, in cubic feet per second, to those for the period of record

Station identification and period of record used	Low flows		Minimum daily flows		
				Period of record shown	
	1980 7-day	7-day 10-year	1980	Discharge	Year of occurrence
06454500 Niobrara River above Box Butte Reservoir, 1947-79	7.4	2.4	6.0	1.6	1953
06461500 Niobrara River near Sparks, 1964-79	343	358	317	200	1966, 1969, 1977
06686000 North Platte River at Lisco, 1958-79	525	83	510	43	1960, 1961
06785000 Middle Loup River at St. Paul, 1963-79	30	124	23	59	1970
06800500 Elkhorn River at Waterloo, 1929-79	134	127	110	50	1940
06841000 Medicine Creek above Harry Strunk Lake, 1951-79	11	17	9.1	13	1976
06815000 Big Nemaha River at Falls City, 1945-79	34	12	30	3.0	1977

Chemical Quality of Streamflow

To develop a summary of the chemical quality of streamflow for the 1980 water year, an analysis was made of specific-conductance records from a representative sampling station in 11 of the 13 river basins in Nebraska. No records were obtained for the water year from either the White River - Hat Creek Basin or the Missouri Tributaries Basin. Locations of the 11 stations selected as representative are shown in figure 2.

Specific conductance can be used to approximate the dissolved-solids concentration in water because it is related to the concentrations and types of ions in water. To determine whether significant differences in specific conductance between the 1980 water year and the period of record occurred, a statistical technique called the t-test was used. This technique required proving or disproving a hypothesis that the mean specific conductance for the 1980 water year is equal to the period-of-record mean. A 95-percent level of significance ($\alpha = 0.05$) was used for each t-test, and it was assumed that the data were normally distributed.

The procedure for determining whether the means are statistically equal requires computing a "t" statistic and comparing it to a value taken from Student's "t" table. If the absolute value of the computed "t" value (t_c) is less than the tabular "t" value (t_{tab}), the hypothesis that the means are equal is accepted. If the absolute value of t_c is greater than t_{tab}, the hypothesis is rejected and the means are considered not to be equal. In terms of specific conductance, a rejection of the hypothesis means that there was a difference in water quality at a particular site between the 1980 water year and the period of record.

Results of the t-tests for the 11 stations are given in table 4. Means are statistically similar (hypothesis accepted) for eight stations, indicating that no significant differences in the mean quality of streamflow at these stations occurred during the 1980 water year. Means are different (hypothesis rejected) for three stations--South Platte River at Roscoe, Platte River at Duncan, and Republican River at Guide Rock.

A comparison of the 1980 water-year mean discharge with period-of-record mean discharges for stations in the 11 basins are given in table 5. All but three stations are the same as in table 4. Substitute stations are given for the Niobrara, South Platte, and Loup River basins because long-term records of discharge are not available for the specific-conductance stations in those basins.

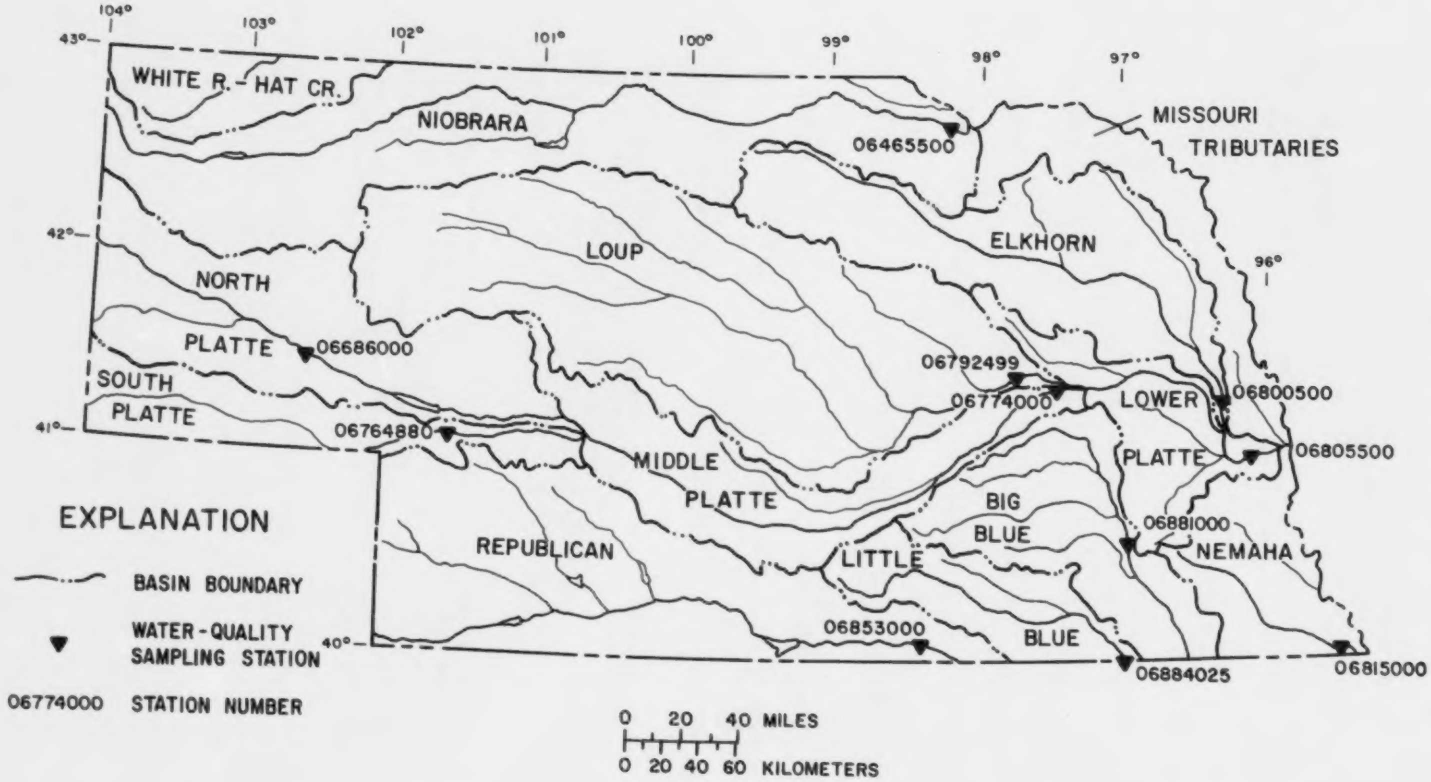

104°
103°
102°
101°
100°
99°
98°
97°
96°
43°
42°
41°
40°
WHITE R.-HAT CR.
NIOBRARA
06465500
MISSOURI
TRIBUTARIES
ELKHORN
LOUP
NORTH
PLATTE
06686000
SOUTH
PLATTE
06764880
06792499
06774000
LOWER
PLATTE
06800500
06805500
MIDDLE
PLATTE
BIG
BLUE
06881000
NEMAHA
REPUBLICAN
LITTLE
BLUE
06853000
06884025
06815000
EXPLANATION
BASIN BOUNDARY
WATER-QUALITY SAMPLING STATION
06774000 STATION NUMBER
0 20 40 MILES
0 20 40 60 KILOMETERS

Figure 2.-- River basins of Nebraska and location of representative water-quality sampling stations.

Table 4.--Results of t-tests comparing specific-conductance means for the 1980 water year with means for the period of record at representative water-quality sampling stations

Stream basin and station identification	Specific conductance, 1980 water year[1]			Specific conductance, period of record[1]				t-test		
	Number of values N_1	Mean $\bar{X}_1$	Standard deviation S_1	Number of values N_2	Mean $\bar{X}_2$	Standard deviation S_2	Period used	t_{tab}	t_c	Hypothesis
Niobrara										
06465500 Niobrara River at Verdel	12	267	28	54	266	28	1967-77	±2.11	0.11	[2]A
North Platte										
06686000 North Platte River at Lisco	12	857	62	263	887	90	1970-77	±2.06	-1.43	A
South Platte										
06764880 South Platte River at Roscoe	12	1,520	362	27	1,890	245	1975-77	±2.58	-3.22	[3]R
Middle Platte										
06774000 Platte River at Duncan	12	929	109	230	828	146	1965-77	±2.14	3.06	R
Loup										
06792499 Loup R. power canal at diversion nr. Genoa	12	271	14	59	278	22	1973-77	±2.06	1.43	A
Elkhorn										
06800500 Elkhorn River at Waterloo	13	475	125	154	496	103	1966-77	±2.14	.58	A
Lower Platte										
06805500 Platte River at Louisville	11	851	356	36	713	262	1972-77	±2.14	1.19	A
Nemaha										
06815000 Big Nemaha R. at Falls City	12	645	114	56	657	147	1973-77	±2.08	-.32	A
Republican										
06853000 Republican R. at Guide Rock	12	654	108	233	565	99	1962-77	±2.18	2.79	R
Big Blue										
06881000 Big Blue River at Crete	12	550	133	81	461	192	1968-77	±2.09	2.02	A
Little Blue										
06884025 Little Blue R. at Hollenberg	14	506	155	68	465	180	1972-77	±2.07	.87	A

[1] Micromhos per centimeter at 25° Celsius
[2] A - Accepted
[3] R - Rejected

Table 5.--Ratios of mean water discharges for the 1980 water year to mean water discharges for the period of record at representative water-quality sampling stations

Stream basin	Station number and name		Mean discharge (ft^3/s)		Period of record used	Ratio, $\left(\frac{\text{1980 mean}}{\text{period-of-record mean}}\right)$
			1980 water year	Period of record		
Niobrara	06462000	Niobrara River near Norden	817	863	1952-79	0.95
North Platte	06686000	North Platte R. at Lisco	1,501	1,341	1958-79	1.12
South Platte	06765500	So. Platte R. at North Platte	1,448	386	1965-79	3.75
Middle Platte	06774000	Platte River at Duncan	2,855	1,777	1965-79	1.61
Loup	06785000	Middle Loup R. at St. Paul	936	998	1963-79	.94
Elkhorn	06800500	Elkhorn River at Waterloo	954	1,095	1929-79	.84
Lower Platte	06805500	Platte River at Louisville	6,678	5,659	1953-79	1.18
Nemaha	06815000	Big Nemaha R. at Falls City	534	587	1945-79	.91
Republican	06853000	Republican R. at Guide Rock	147	354	1950-79	.42
Big Blue	06881000	Big Blue R. at Crete	241	350	1953-79	.69
Little Blue	06884025	Little Blue R. at Hollenberg	332	494	1974-79	.67

Comparison of the last column of table 4 with the last column of table 5 indicates that specific-conductance mean for the 1980 water year was significantly different from that for the period of record only where the ratios of mean streamflow for the 1980 water year to the mean streamflow for the period of record were less than 0.5 or greater than 1.5.

Mean specific conductance for the 1980 water year for the Republican River at Guide Rock was significantly greater than the period-of-record mean (table 4) because streamflow was considerably less than normal. A larger percentage of the streamflow was derived from ground-water seepage, which generally is more mineralized than that part of streamflow derived from overland runoff or reservoir releases.

Conversely, mean specific conductance for the 1980 water year for the South Platte River at Roscoe was significantly less than the period-of-record mean because streamflow was considerably greater than normal. As a result of much snowmelt in the mountains of Colorado, the runoff component of streamflow was considerably greater than normal. The relatively dilute snowmelt caused the 1980 water-year specific-conductance mean to be about 20 percent less than that for the period of record.

The significant increase in mean specific conductance for the 1980 water year for the Platte River near Duncan occurred with a mean discharge that was greater than normal. This seeming contradiction can be explained by examining the sources of the streamflow at Duncan. The streamflow at Duncan is the combined flow of the North and South Platte Rivers, ground-water seepage, and runoff from tributaries downstream from the confluence of the North and South Platte Rivers. Flow in the North Platte was near normal for the 1980 water year, but that in the South Platte was several times normal. Because specific conductance of water from the South Platte River is more than twice that of water from the North Platte River, the net effect was an increase in mean specific conductance even though there was an increase in mean discharge.

Ground-Water Levels

Ground-water levels reflected the varying climatic conditions during the year. Prior to the irrigation season, levels were near or above long-term averages throughout the State. Dry conditions during the summer resulted in large withdrawals of ground water for irrigation and reduced recharge to deeper aquifers. Consequently, water levels following the irrigation season were much lower than the previous year in all irrigated areas.

Water-level changes that occurred during the year were determined from the statewide network of observation wells measured by numerous Federal, State, and local agencies. The network consists of more than 3,000 wells measured annually, semiannually, or monthly and 80 wells equipped with continuous recorders.

Hydrographs of observation wells equipped with continuous recorders in Adams and Chase Counties illustrate the trend in water levels during the year (fig. 3). Both wells are located in areas where intensive irrigation development has caused a decline of 15 ft or more since predevelopment. The water level in the well in Adams County, in an area where water levels have declined progressively since 1950, reached a new low for 46 years of record. The water level in the well in Chase County also reached a new low in an area where water levels have been declining since about 1960.

Greater than normal streamflow during the early spring was reflected in many of the shallow observation wells in the State. Water levels in shallow wells distant from irrigated areas were mostly above long-term averages, with that in the key well in Holt County reaching a new high during April for 45 years of record. Reduced streamflow during the summer and fall resulted in lower water levels in most shallow wells, including the key well in Saunders County, which recorded a new low during November for 48 years of record.

EXPLANATION OF THE RECORDS

The records in this report are for the 1980 water year, which began October 1, 1979, and ended September 30, 1980. A calendar of the water year is provided on the inside of the front cover. Records for a given station, whether water discharge or water quality, are presented together, so far as practicable, with those for water discharge presented first. Headings providing information on station locations, drainage areas, and other pertinent items are included for all records except those regarded as miscellaneous or partial.

Station Identification Numbers

All data stations, whether streamsite or well, in this report are assigned an identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic location. The "downstream order" system is used for regular surface-water stations and the "latitude-longitude" system is used for wells and for surface-water stations where only miscellaneous measurements are made.

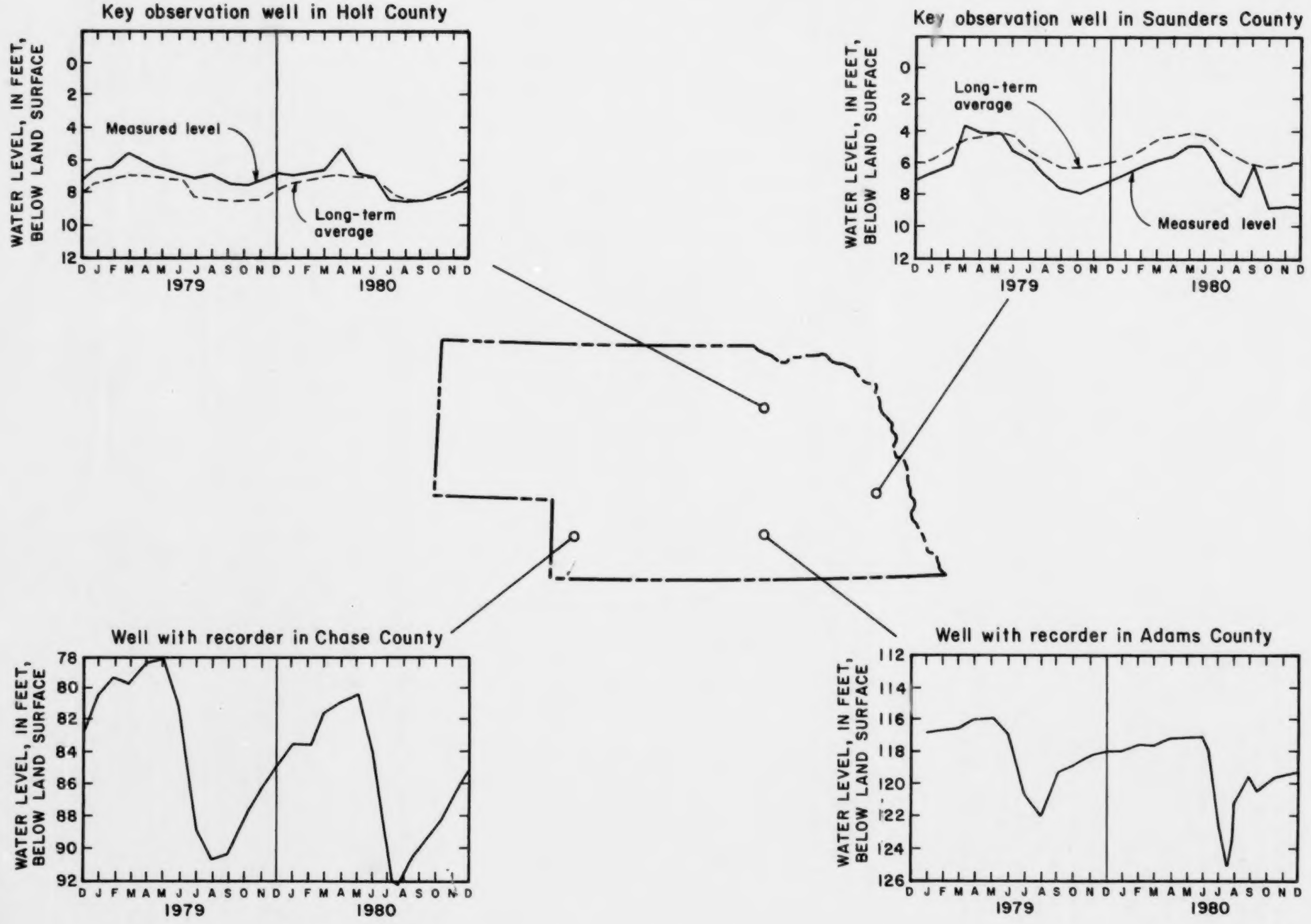


Figure 3.--Hydrographs of representative observation wells, 1979 and 1980.

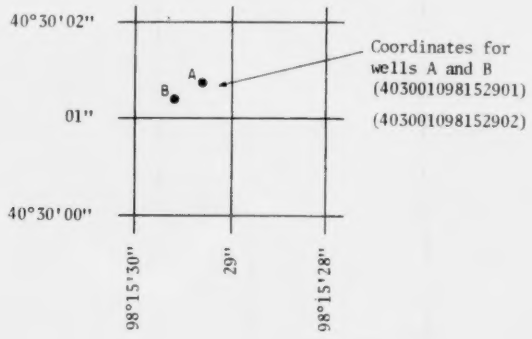
Downstream Order System

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a mainstream station are listed before that station. A station on a tributary that enters between two mainstream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary with respect to the stream to which it is immediately tributary is indicated by an indention in the "List of Stations" in the front of this report. Each indention represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

The station-identification number is assigned according to downstream order. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete eight-digit number for each station, such as 06797000, which appears just to the left of the station name, includes the two-digit part number "06" plus the six-digit downstream-order number "797000." The part number designates the major river basin; for example, part "06" is the Missouri River basin.

Latitude-Longitude System

The identification numbers for wells and miscellaneous surface-water sites are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the wells or other sites within a 1-second grid. (See figure below.)



System for numbering wells and miscellaneous sites (latitude and longitude).

Records of Stage and Water Discharge

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained using a continuous stage-recording device through which either instantaneous or mean daily discharges may be computed for any time, or any period of time, during the period of record. Complete records of lake or reservoir content, similarly, are those for which stage or content may be computed or estimated with reasonable accuracy for any time, or period of time. They may be obtained using a continuous stage-recording device, but need not be. Because mean daily discharges and end-of-day contents commonly are published for such stations, they are referred to as "daily stations."

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles such as "Crest-stage partial records," or "Low-flow partial records." Records of miscellaneous-discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records, but they are presented separately in this report. Locations of all complete-record and crest-stage stations for which data are given in this report are shown in figure 4.

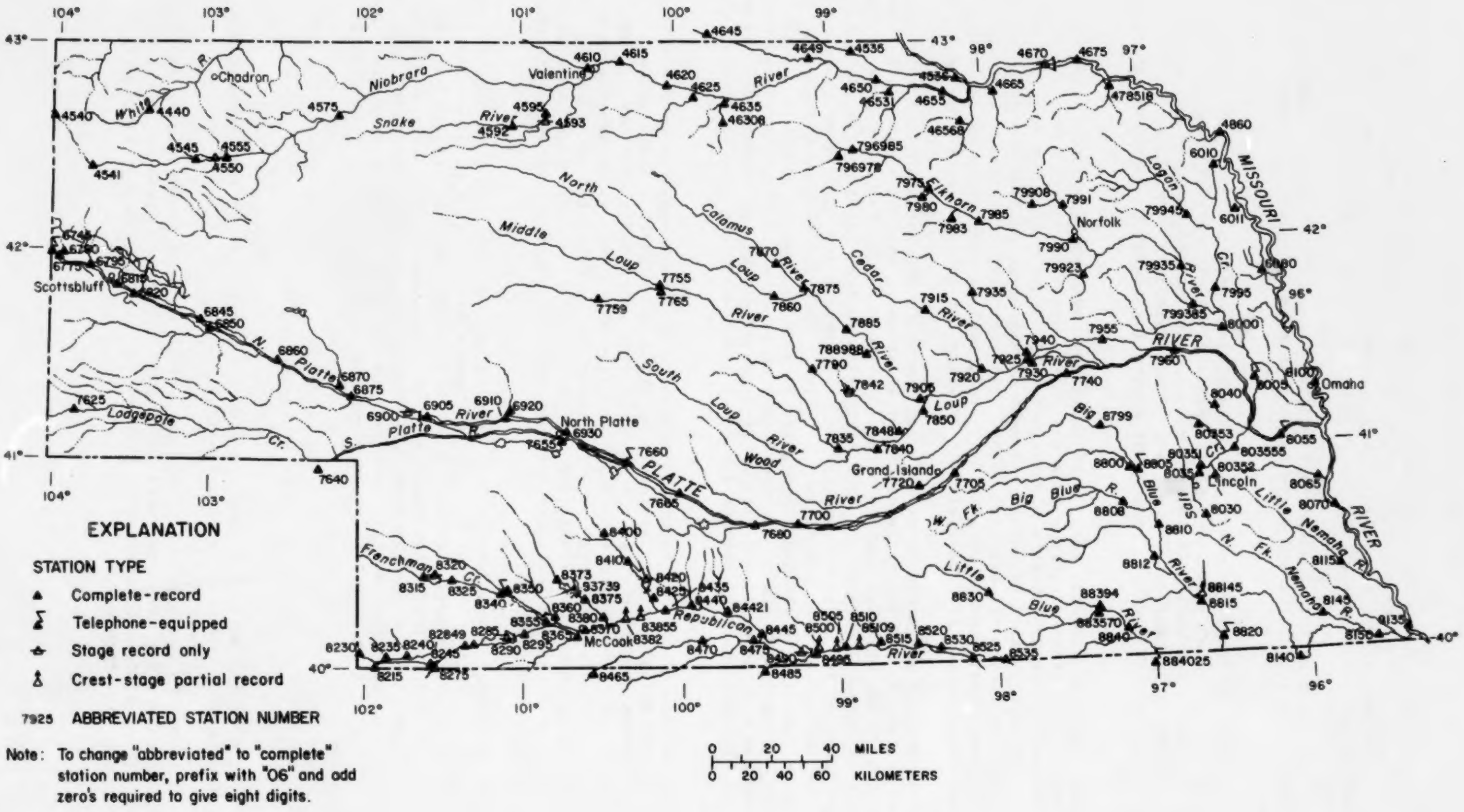

EXPLANATION
STATION TYPE
▲ Complete-record
Telephone-equipped
Stage record only
Crest-stage partial record
7925 ABBREVIATED STATION NUMBER
Note: To change "abbreviated" to "complete" station number, prefix with "06" and add zero's required to give eight digits.
0 20 40 MILES
0 20 40 60 KILOMETERS
104°
103°
102°
101°
100°
99°
98°
97°
96°
43°
42°
41°
40°
Chadron
Valentine
Scottsbluff
North Platte
McCook
Grand Island
Norfolk
Lincoln
Omaha
White R.
Niobrara River
Snake River
North Loup River
Middle Loup River
Calamus River
Cedar River
South Loup River
Wood River
Loup River
Elkhorn River
Logan Cr.
MISSOURI RIVER
N. Platte River
S. Platte R.
PLATTE RIVER
Lodgepole Cr.
Frenchman Cr.
Republican River
Little Blue River
Big Blue R.
W. Fk. Big Blue R.
Big Blue River
Salt Cr.
Little Nemaha R.
N. Fk. Nemaha R.

Figure 4.--Location of active surface-water gaging stations.

Data Collection and Computation

The data obtained at a complete-record gaging station on a stream or canal consist of a continuous record of stage, individual measurements of discharge throughout a range of stages, and notations regarding factors that may affect the relationship between stage and discharge. These data, together with supplemental information, such as weather records, are used to compute daily discharges. The data obtained at a complete-record gaging station on a lake or reservoir consist of a record of stage and of notations regarding factors that may affect the relationship between stage and lake content. These data are used with stage-area and stage-capacity curves or tables to compute water-surface areas and lake storage.

Continuous records of stage are obtained with analog recorders that trace continuous graphs of stage or with digital recorders that punch stage values on paper tapes at selected time intervals. Measurements of discharge are made with current meters using methods adapted by the Geological Survey as a result of experience accumulated since 1880. These methods are described in standard textbooks, in Water-Supply Paper 888, and in U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapter A6.

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. From these curves, rating tables indicating the approximate discharge for any stage within the range of the measurements are prepared. If it is necessary to define extremes of discharge outside the range of the current-meter measurements, the curves are extended using: (1) logarithmic plotting; (2) velocity-area studies; (3) results of indirect measurements of peak discharge, such as slope-area or contracted-opening measurements, and computations of flow-over-dams or weirs; or (4) step-backwater techniques.

Daily mean discharges are computed by applying the daily mean stages (gage heights) to the stage-discharge curves or tables. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on the individual discharge measurements and notes of the personnel making the measurements are applied to the gage heights before the discharges are determined from the curves or tables. This shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic growth or debris on the control. For some stations, formation of ice in the winter may so obscure the stage-discharge relations that daily mean discharges must be estimated from other information such as temperature and precipitation records, notes of observations, and records for other stations in the same or nearby basins for comparable periods.

In computing records of lake or reservoir contents, it is necessary to have available from surveys, curves or tables defining the relationship of stage and content. The application of stage to the stage-content curves or tables gives the contents from which daily, monthly, or yearly changes then are determined. If the stage-content relationship changes because of deposition of sediment in a lake or reservoir, periodic resurveys may be necessary to redefine the relationship. Even when this is done, the contents computed may become increasingly in error as time since the last survey increases. Discharges over lake or reservoir spillways are computed from stage-discharge relationships much as other stream discharges are computed.

For some gaging stations there are periods when no gage-height record is obtained, or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated from the recorded range in stage, previous or following record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated from operator's logs, previous or following record, inflow-outflow studies, and other information.

Data Presentation

Information is provided with each complete record of discharge or lake content. Comments to follow clarify information under the various headings.

LOCATION.--Information on locations is obtained from the most accurate maps available. River mileages, given for only a few stations, were determined by methods given in "River Mileage Measurement," Bulletin 14, Revision of October 1968, prepared by the Water Resources Countil or were provided by the U.S. Army Corps of Engineers.

DRAINAGE AREA.--Drainage areas are measured using the most accurate maps available. Because the type of maps available vary from one drainage basin to another, the accuracy of drainage areas likewise vary. Also, updating of drainage areas is common as better maps become available.

PERIOD OF RECORD.--This indicates the period for which there are published records for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not, and whose location was such that records from it can reasonably be merged with records from the present station.

REVISED RECORDS.--Published records, because of new information, occasionally are found to be incorrect, and revisions are printed in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If no daily, monthly, or annual figures of discharge were revised, that fact is noted after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was first published is given.

GAGE.--The type of gage in current use, the datum of the current gage referred to National Geodetic Vertical Datum of 1929 (see glossary), and a condensed history of the types, locations, and datums of previous gages are given under this heading.

REMARKS.--The remarks contain information relative to the accuracy of the records, to special methods of computation, to conditions that affect natural flow at the station, and possibly to other pertinent items.

AVERAGE DISCHARGE.--The discharge value given is the arithmetic mean of the water-year mean discharges. It is computed only for stations having at least 5 water years of complete record, and only water years of complete record are included in the computation. It is not computed for stations where diversions, storage, or other water-use practices cause the value to be meaningless. If water developments significantly altering flow at a station are put into use after the station has been in operation for a period of years, a new average is computed as soon as 5 water years of record has accumulated following the development. The median of yearly mean discharges also is given under this heading for stations having 10 or more water years of record, if the median differs from the average given by more than 10 percent.

EXTREMES OUTSIDE PERIOD OF RECORD.--Included here is reliable information concerning major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by the U.S. Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Extremes may include maximum and minimum stages and maximum and minimum discharges or content. Unless otherwise qualified, the maximum discharge or content is the instantaneous maximum corresponding to the highest stage that occurred. The highest stage may have been obtained from a graphic or digital recorder, a crest-stage gage, or by direct observation of a nonrecording gage. If the maximum stage did not occur on the same day as the maximum discharge or content, it is given separately. Similarly, the minimum is the minimum daily discharge and was determined and is reported in the same manner as the maximum.

EXTREMES FOR CURRENT YEAR.--Extremes given here are similar to those for the period of record. For stations meeting certain criteria, information relative to peak discharges and stages greater than a selected base discharge is presented under this heading. Whereas there can be only one peak discharge for the year, there is a peak discharge for each major rise of the stream. The discharge peaks greater than the base discharge, excluding the highest one, are referred to as secondary peaks and are important in many types of detailed hydrologic studies. Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substatial control by man. The time of occurrence for peaks is expressed in 24-hour local standard time. For example, 12:30 a.m. is 0030, and 1:30 p.m. is 1330. Minimums for the current water year appear below the table of peak data.

Manuscript information for lake or reservoir stations differs from that for stream stations in the nature of the "Remarks," in the inclusion of a statement of "cooperation," and in the inclusion, where daily contents are given, of a skeleton stage-capacity table.

The data obtained at partial-record stations follow those for complete-record stations and are presented in three formats. The first presents maximum discharges for crest-stage partial-record stations, of which there are only a few. The second presents discharges measured at miscellaneous sites, that is, at sites other than complete gaging stations or crest-stage partial-record stations. The third presents discharges or indications of zero flow resulting from low-flow investigations. Some of the stations measured in the low-flow investigations are the same as those for which complete records or partial records are published.

Accuracy of the Records

The accuracy of streamflow records depends primarily on: (1) The stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements; and (2) the accuracy of measurements of stage, measurements of discharge, and interpretation of records.

The accuracy attributed to the records is indicated under "REMARKS." "Excellent" means that about 95 percent of the daily discharges are within 5 percent of the true; "good," within 10 percent; and "fair," within 15 percent. Records that do not meet the criteria mentioned, are rated "poor." Different accuracies may be attributed to different parts of a given record.

Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second for values less than 1 ft^3/s; to the nearest tenth between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to 3 significant figures for more than 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharges listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff, in inches, are not published. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated.

Other Records Available

Records of daily diversions of water from streams by canals are collected by and published in Hydrographic Reports of the Nebraska Department of Water Resources. Included are discharge records for streams and storage records for reservoirs not published in reports of the Geological Survey. Copies of the Hydrographic Reports may be obtained from the Nebraska Department of Water Resources, 301 Centennial Mall, South, P.O. Box 94676, Lincoln, NE 68509 (telephone number: 402-471-2363).

Records of discharge, not published by the Geological Survey, are collected in Nebraska at several sites by the U.S. Army Corps of Engineers. The National Water Data Exchange (NAWDEX), U.S. Geological Survey, Reston, VA 22092, maintains an index of these sites. Information on records at specific sites can be obtained from that office upon request.

Information used in the preparation of the records in this publication, such as discharge-measurement notes, gage-height records, temperature measurements, and rating tables are on file in the Nebraska District office. Also, most of the daily mean discharges are in computer-readable form and have been analyzed statistically. Information on the availability of the unpublished information or on the results of statistical analyses of the published records may be obtained from the District office.

Records of Surface-Water Quality

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because interpretation of records of surface-water quality nearly always requires corresponding discharge data. Records of surface-water quality in this report may involve a variety of types of data and measurement frequencies. Based on measurement frequencies, the records are considered to be continuing, partial, or miscellaneous. "Continuing records" are based on measurements made quarterly or more frequently, "partial records" are based on measurements made less than quarterly but systematically throughout a period of at least several years, and "miscellaneous records" are based on measurements made less than quarterly but not systematically.

A careful distinction needs to be made between "continuing records" as used in this report and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most are obtained only monthly or less frequently. Locations of stations for which records on the quality of surface water appear in this report are shown in figure 5.

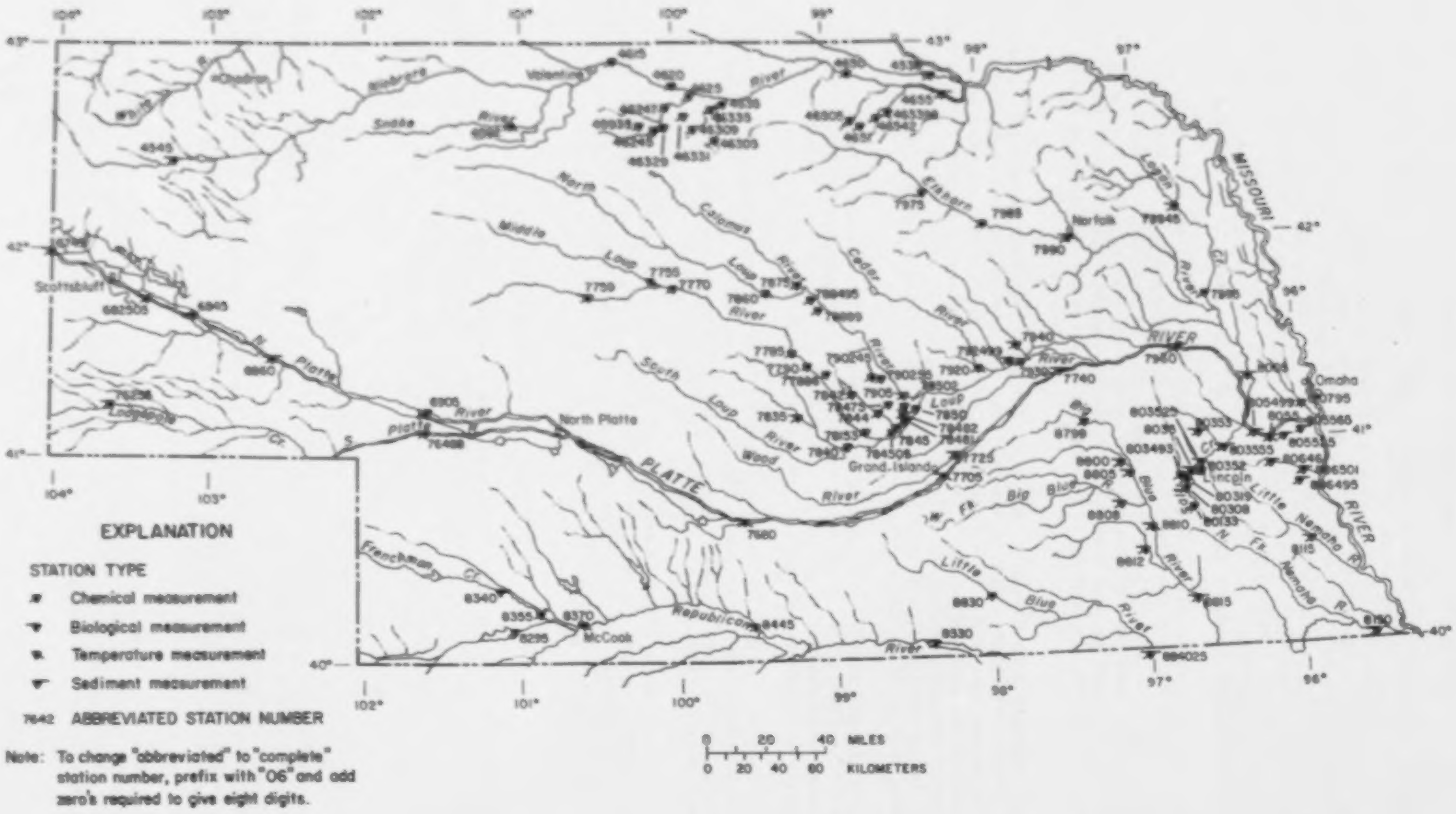

104°
103°
102°
101°
100°
99°
98°
97°
96°
43°
42°
41°
40°
MISSOURI
RIVER
PLATTE
Platte
N. Platte
S. Platte
Niobrara
Snake
River
White
Chadron
Valentine
North
Middle
Loup
Calamus
Cedar
South Loup
Wood
Elkhorn
Logan
Norfolk
Omaha
Lincoln
Big Blue
Little Blue
Republican
Frenchman Cr.
McCook
North Platte
Grand Island
Scottsbluff
Lodgepole
Little Nemaha R.
N. Fk. Nemaha R.
EXPLANATION
STATION TYPE
Chemical measurement
Biological measurement
Temperature measurement
Sediment measurement
7642 ABBREVIATED STATION NUMBER
Note: To change "abbreviated" to "complete" station number, prefix with "06" and add zero's required to give eight digits.
0 20 40 MILES
0 20 40 60 KILOMETERS

Figure 5.-- Location of active surface-water-quality stations.

Onsite Measurements and Sample Collection

In obtaining water-quality data, a major concern needs to be assuring that the data obtained represent the in situ quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, need to be made onsite when the samples are taken. To assure that measurements made in the laboratory also represent the insitu water, carefully prescribed procedures need to be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in publications on "Techniques of Water-Resources Investigations," Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4. All of these references are listed on p. 19 of this report. Also, detailed information on collecting, treating, and shipping samples may be obtained from the Geological Survey District office.

To obtain representative data for a stream, one measurement or sample near the centroid of flow may be adequate if the solutes are mixed homogeneously throughout the stream cross section. If they are not, it is necessary to sample through several verticals across the stream and composite these samples. All samples obtained for the National Stream-Quality Accounting Network (see definitions) are obtained from at least several verticals. Whether samples are obtained from the centroid of flow or from several verticals, depends on flow conditions and other factors which must be evaluated by the collector.

Suspended sediment in a stream commonly is not distributed uniformly throughout the stream cross section. To obtain suspended-sediment samples that are representative of the entire stream cross section, it is common practice to use depth-integrating samplers and to obtain the samples from a number of verticals across the stream. In Nebraska, the samples ordinarily are obtained using a method called the "equal transit rate method (ETR)," one in which the proportion of sediment obtained from each vertical is proportioned to the discharge in that vertical. (See Techniques of Water Resources Investigations, Book 3, Chap. C2, p. 54.)

Suspended-sediment samples obtained daily by local observers are taken from one or two verticals. Concentrations of sediment from observers' verticals are compared periodically with those from several verticals so that measurements from the daily samples may be adjusted to reflect more accurately the average concentrations for the entire stream cross section.

During periods in which water discharge and sediment concentrations may be changing rapidly, samples may be collected more frequently than daily. Published mean daily sediment concentrations for these periods may be computed by the subdivided-day method (see Techniques of Water Resources Investigations, Book 3, Chap. C3, p. 47).

At some stations, suspended-sediment samples are collected only periodically. Although data from periodic collections may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment-discharge characteristics of the stream.

Laboratory Measurements

Sediment samples, samples for biochemical-oxygen demand (BOD), and daily samples for specific conductance are analyzed locally. All other samples are analyzed in the Geolgical Survey laboratories in Arvada, Colo., or Doraville, Ga. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chap. C1. Methods used by the Geological Survey laboratories are given in TWRI, Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4.

Data Presentation

Where water-quality records for a given station are presented in this report depends partly on the nature of the records and partly on the presence of associated records. If, for a given station, complete discharge records are published, the water-quality records are presented immediately following the discharge records for that station. If, however, complete discharge records are not published and the water-quality records are "continuing" in nature, the water-quality records appear in the proper downstream order for that station. Water-quality records that are "partial" only--obtained systematically but less than quarterly--are presented by basins in a single table for the entire State.

For all stations with continuing records, information is provided in descriptive headings preceding tabular data. Tables of chemical, physical, biological, radiochemical data, and so forth, obtained at a frequency less than daily are presented first. Tables of "daily values" of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment then follow in sequence as listed.

In the descriptive headings, if the location is identical to that of the discharge gaging station, neither the LOCATION nor the DRAINAGE AREA statements are repeated.

LOCATION.--See p. 12; same comments apply.

DRAINAGE AREA.--See p. 13; same comments apply.

PERIOD OF RECORD.--The periods are shown separately for records of parameters measured daily or continuously and those measured less than daily. For those measured daily or continuously, periods of record are given for the parameters individually.

INSTRUMENTATION.--Information on instrumentation is given only if a water-quality monitor is in operation at a station.

REMARKS.--Remarks provide added information pertinent to the collection, analysis, or computation of the records.

COOPERATION.--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

EXTREMES.--Maximums and minimums are given only for parameters measured daily or more frequently. None are given for parameters measured weekly or less frequently, because the true maximums or minimums may not have been samples. Extremes, when given, are for both the period of record and for the current water year.

REVISIONS.--If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

Records of Ground-Water Levels

Only water-level data from a national network of observation wells are given in this report. These data are intended to provide a sampling and historical record of water-level changes in the Nation's most important aquifers. Locations of the observation wells in this network in Nebraska are shown in figure 6.

Although, in this report, records of water levels are presented for fewer than 100 wells, records are obtained through cooperative efforts of many Federal, State, and local agencies for several thousand observation wells throughout Nebraska and are placed in computer storage. Each spring, the Nebraska District and the Conservation and Survey Division of the University of Nebraska publishes a report for the previous calendar year entitled "Groundwater Levels in Nebraska, 19__". This report contains hydrographs of recorder wells, detailed maps showing changes in water levels from the previous year, and other useful items. Information about the availability of the data in the water-level file may be obtained from the District Chief, Nebraska District. (See address on back of front page.)

Measurements of water levels are made in many types of wells under varying conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well ensure that measurements at each well are of consistent accuracy and reliability.

Tables of water-level data are presented by counties arranged in alphabetical order. The prime identification number for a given well is the 15-digit number that appears in the upper left corner of the table. The secondary identification number is the local well number, an alphanumeric number, derived from the township-range location of the well.

Water-level measurements in this report are given in feet with reference to land-surface datum (lsd). Land-surface datum is a datum plane that is approximately at land surface at each well. If known, the altitude of the land-surface datum is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (eom).

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error of determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water, the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given to a tenth of a foot or a larger unit.

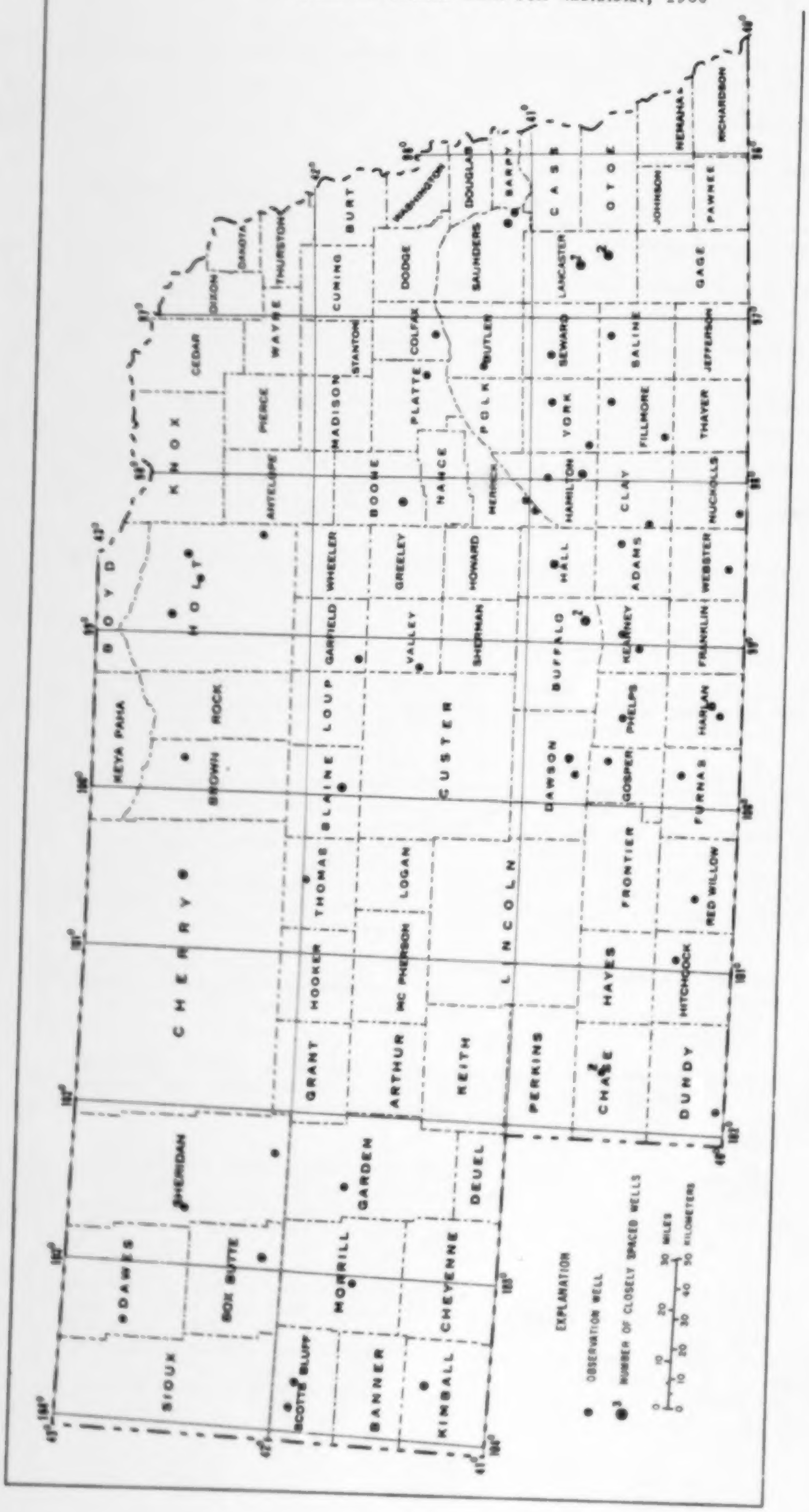

SIOUX
DAWES
SHERIDAN
BOX BUTTE
SCOTTS BLUFF
BANNER
MORRILL
GARDEN
KIMBALL
CHEYENNE
DEUEL
CHERRY
KEYA PAHA
BROWN
ROCK
BOYD
HOLT
KNOX
CEDAR
DIXON
DAKOTA
GRANT
HOOKER
THOMAS
BLAINE
LOUP
GARFIELD
WHEELER
ANTELOPE
PIERCE
WAYNE
THURSTON
ARTHUR
MC PHERSON
LOGAN
CUSTER
VALLEY
GREELEY
BOONE
MADISON
STANTON
CUMING
BURT
KEITH
LINCOLN
SHERMAN
HOWARD
NANCE
PLATTE
COLFAX
DODGE
WASHINGTON
PERKINS
DAWSON
BUFFALO
HALL
MERRICK
POLK
BUTLER
SAUNDERS
DOUGLAS
SARPY
CHASE
HAYES
FRONTIER
GOSPER
PHELPS
KEARNEY
ADAMS
HAMILTON
YORK
SEWARD
LANCASTER
CASS
OTOE
DUNDY
HITCHCOCK
RED WILLOW
FURNAS
HARLAN
FRANKLIN
WEBSTER
NUCKOLLS
CLAY
FILLMORE
SALINE
THAYER
JEFFERSON
GAGE
JOHNSON
NEMAHA
PAWNEE
RICHARDSON
EXPLANATION
OBSERVATION WELL
NUMBER OF CLOSELY SPACED WELLS
0 10 20 30 MILES
0 10 20 30 40 50 KILOMETERS

Figure 6.-- Location of observation wells in the national network.

Records of Ground-Water Quality

Records of ground-water quality in this report differ from other types of records in that for most sampling sites they consist of only one set of measurements. The quality of ground water ordinarily changes slowly, if at all, so that frequent measuring of the same parameters is not necessary unless one is concerned with a particular problem such as monitoring for trends in nitrate concentration.

The records of ground-water quality in this report were obtained mostly as a part of special studies in specific areas. Consequently, a number of chemical analyses are presented for some counties but none are presented for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality statewide. Such a view can be attained only by considering records for this year in context with similar records obtained for these and other counties in earlier years.

All samples were obtained by trained personnel. Wells sampled were pumped long enough to assure that the water collected came directly from the aquifer and had not stood for a long time in the well casing where it would have been exposed to the atmosphere and to metals comprising the casings.

Tables of water-quality data are presented by counties arranged in alphabetical order. The prime identification number for wells sampled is the 15-digit number derived from the latitude-longitude locations.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

Thirty-four manuals by the U.S. Geological Survey have been published to date in the series on techniques describing procedures for planning and executing specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) is on surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises. The reports listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 1200 South Eads Street, Arlington, VA 22202 (authorized agent of the Superintendent of Documents, Government Printing Office).

NOTE: When ordering any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

1-D1. *Water temperature-influential factors, field measurements, and data presentation,* by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1, 65 pages.

1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents,* by W. W. Wood: USGS--TWRI Book 1, Chapter D2, 1976, 24 pages.

2-D1. *Application of surface geophysics to ground-water investigations,* by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1, 1974, 116 pages.

2-E1. *Application of borehole geophysics to water-resources investigations,* by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1, 1971, 126 pages.

3-A1. *General field and office procedures for indirect discharge measurements,* by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1, 1967, 30 pages.

3-A2. *Measurement of peak discharge by the slope-area method,* by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2, 1967, 12 pages.

3-A3. *Measurement of peak discharge at culverts by indirect methods,* by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3, 1968, 60 pages.

3-A4. *Measurement of peak discharge at width contractions by indirect methods,* by H. F. Matthai: USGS--TWRI Book 3, Chapter A4, 1967, 44 pages.

3-A5. *Measurement of peak discharge at dams by indirect methods,* by Harry Hulsing: USGS--TWRI Book 3, Chapter A5, 1967, 29 pages.

3-A6. *General procedure for gaging streams,* by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6, 1968, 13 pages.

3-A7. *Stage measurements at gaging stations,* by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7, 1968, 28 pages.

3-A8. *Discharge measurements at gaging stations,* by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8, 1969, 65 pages.

3-A11 *Measurement of discharge by moving-boat method,* by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11, 1969, 22 pages.

3-B1. *Aquifer-test design, observation, and data analysis,* by R. W. Stallman: USGS--TWRI Book 3, Chapter B1, 1971, 26 pages.

3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction,* by G. D. Bennett: USGS--TWRI Book 3, Chapter B2, 1976, 172 pages.

3-C1. *Fluvial sediment concepts*, by H. P. Guy: USGS--TWRI Book 3, Chapter C1, 1970, 55 pages.
3-C2. *Field methods for measurement of fluvial sediment*, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2, 1970, 59 pages.
3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3, 1972, 66 pages.
4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1, 1968, 39 pages.
4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2, 1968, 15 pages.
4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1, 1972, 18 pages.
4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2, 1973, 20 pages.
4-B3. *Regional analyses of streamflow characteristics*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3, 1973, 15 pages.
4-D1. *Computation of rate and volume of stream depletion by wells*, by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1, 1970, 17 pages.
5-A1. *Methods for determination of inorganic substances in water and fluvial sediments*, by M. W. Skougstad and others, editors: USGS--TWRI Book 5, Chapter A1, 1979, 626 pages.
5-A2. *Determination of minor elements in water by emission spectroscopy*, by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2, 1971, 31 pages.
5-A3. *Methods for analysis of organic substances in water*, by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3, 1972, 40 pages.
5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, edited by P. E. Greeson, T. A. Ehlke, G. A. Irwin, B. W. Lium, and K. V. Slack: USGS--TWRI Book 5, Chapter A4, 1977, 332 pages.
5-A5. *Methods for determination of radioactive substances in water and fluvial sediments*, by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5, 1977, 95 pages.
5-C1. *Laboratory theory and methods for sediment analysis*, H. P. Guy: USGS--TWRI Book 5, Chapter C1, 1969, 58 pages.
7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1, 1976, 116 pages.
7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water*, by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2, 1978, 90 pages.
8-A1. *Methods of measuring water levels in deep wells*, by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1, 1968, 23 pages.
8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2, 1968, 15 pages.

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. See also table for converting English units to International System (SI) Units on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equal to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Algae are mostly aquatic single-celled, colonial, or multicelled plants, containing chlorophyll and lacking roots, stems, and leaves.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as all the organisms which produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C ± 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestine or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C ± 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in the intestine of warmblooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C ± 1.0°C on M-enterrococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Bed material is the unconsolidated material of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by micro-organisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

Ash mass is the weight or amount of residue present after the residue from the dry mass determination has been asked in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in g/m^3 (grams per cubic meter), and periphyton and benthic organisms in g/m^2 (grams per square meter).

Dry mass refers to the mass of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and the ash mass, and represents the actual weight of the living matter. The organic mass weight is expressed in the same units as for ash and dry mass.

Wet mass is the mass of living matter plus contained water.

Cfs-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons, or 2,445 cubic meters.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water, and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common green pigments in plants.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Cubic foot per second (Cfs, ft^3/c) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment) that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

Dissolved refers to that material in a representative water sample which passes through a 0.45 m membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Drainage area of a stream at a specified location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Gage-height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of gage height or discharge are obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an eight-digit number.

Methylene blue active substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic detergent compounds.

Micrograms per kilogram (μg/kg) is a unit expressing the concentration of a chemical element as the mass (micrograms) of the element sorbed per unit mass (kilogram) of sediment.

Micrograms per liter (UG/L, μg/L) is a unit for expressing the concentration of chemical constituents in solution. It represents one one-thousandth of a milligram of constituent in a liter of solution.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the mass of solute per unit volume (liter) of water. Milligrams or micrograms per liter may be converted to milliequivalents per liter by using appropriate factors. Concentrations of suspended sediment also is expressed in mg/L and is based on the mass of sediment per liter of water-sediment mixture. Sediment concentration in milligrams per liter also may be converted to parts per million by using appropriate factors.

National Geodetic Vertical Datum of 1929 (NGVD) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

National stream-quality accounting network (NASQAN) is a data-collection network designed by the Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated into the network design. Areal configuration of the network is based on river-basin accounting units (identified by eight-digit hydrologic-unit numbers) designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis, and (2) to detect and assess long-term changes in streamflow and stream quality.

Organism is any living entity, such as an insect, phytoplankter, or zooplankter.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meters (m^2), acres, or hectares. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliters (mL) or liters (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Parameter code is a five-digit number assigned to identify, uniquely, a specific constituent or property. The parameter codes used by the Geological Survey are assigned by the U.S. Environmental Protection Agency and are identical to those used in the STORET data system. They are used widely by Federal and State agencies; data listed under a given code by one agency should be comparable to data listed under the same code by other agencies.

Partial-record station is a particular site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with the recommendation made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay..........	0.00024 - 0.004	Sedimentation
Silt..........	.004 - .062	Sedimentation
Sand..........	.062 - 2.0	Sedimentation or sieve
Gravel........	2.0 - 64.0	Sieve

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic matter is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native water analysis.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population in terms of types, numbers, mass, or volume.

Periphyton is the assemblage of microorganisms attached to and growing upon solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms.

Pesticide program is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in streams where potential contamination could result from the application of the commonly used insecticides and herbicides. Operation of the network is a Federal interagency activity.

Pesticides are chemical compounds used to control undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides, which control insects and plants, respectively, are the two categories reported.

Picocurie (PC, pCi) is one trillionth (1 x 10^{12}) of the amount of ratioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7 x 10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algae mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Polychlorinated biphenyls (PCB's) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotypes. The streams that are sampled represent major drainage basins in the conterminous United States.

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of only readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Return period is the average time interval between occurrences of a hydrological event of a given or greater magnitude, usually expressed in years. May also be called recurrence interval.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Suspended-sediment discharge (tons/day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight or volume, that is discharged in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft^3/s) x 0.0027.

Suspended-sediment load is quantity of suspended sediment passing a section in a specified period.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a given time.

7-day 10-year low flow ($7\ Q_{10}$) is the discharge at the 10-year recurrence interval taken from a frequency curve of annual values of the lowest mean discharge for 7 consecutive days (the 7-day low flow).

Sodium-adsorption-ratio (SAR) is the expression of relative activity of sodium ions in exchange reaction with soil and is an index of sodium or alkali hazard to the soil. This ratio should be known especially for water used for irrigating land.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current and is expressed in micromhos per centimeter at 25°C. Because the specific conductance is related to the number and specific chemical types of ions in solution, it can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream or from well to well, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and the volume of water, per unit of time, flowing in a channel.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lives.

Natural substrate refers to any naturally occurring emersed or submersed solid surface, such as a rock or tree, upon which an organism lives.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multiplate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 μm membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 μm membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchial scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata, is the following:

Kingdom....................	Animal
Phylum.....................	Arthropoda
Class......................	Insecta
Order......................	Ephemeroptera
Family.....................	Ephemeridae
Genus......................	Hexagenia
Species....................	Hexagenia limbata

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term "temperature recorder" is used in the table headings and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

Tons per day is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour period.

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determined all of the constituent in the sample.)

Total, recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses, because different digestion procedures are likely to produce different analytical results.

Water year in Geological Survey reports dealing with surface-water supply is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1980, is called the "1980 water year."

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to State annual basic-data reports (WRD was used as an abbreviation for "Water-Resources Data" in reports published prior to 1976).

WSP is used as an abbreviation for "Water-Supply Paper" in references to previously published reports.

WHITE RIVER BASIN

06444000 WHITE RIVER AT CRAWFORD, NE

LOCATION.--Lat 42°41'33", long 103°25'03", in W1/2 sec.3, T.31 N., R.52 W., Dawes County, Hydrologic Unit 10140201, on right bank 15 ft (5 m) downstream from bridge in city park at Crawford.

DRAINAGE AREA.--313 mi^2 (811 km^2).

PERIOD OF RECORD.--February 1931 to September 1943, October 1947 to current year.

REVISED RECORDS.--WSP 1309: 1931(M), 1942(M). WSP 1729: 1958-59(M). WSP 1917: 1958-59.

GAGE.--Water-stage recorder. Datum of gage is 3,659.85 ft (1,115.522 m) National Geodetic Vertical Datum of 1929. Feb. 25, 1931, to Oct. 2, 1933, nonrecording gage at old highway bridge 0.5 mi (0.8 km) upstream at different datum and Oct. 3, 1933, to Sept. 30, 1943, 1 mi (2 km) upstream at different datum.

REMARKS.--Records good except those for winter period, which are fair. Some regulation at low flows by pumps for irrigation and diversion for water supply for town of Crawford.

AVERAGE DISCHARGE.--45 years, 20.1 ft^3/s (0.569 m^3/s), 14,560 acre-ft/yr (18.0 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,580 ft^3/s (44.7 m^3/s) Mar. 15, 1948, gage height, 6.88 ft (2.097 m); maximum gage height, 7.7 ft (2.35 m) July 10, 1958, from floodmarks; minimum daily discharge, 2.7 ft^3/s (0.076 m^3/s) Aug. 13, 31, Sept. 1, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 126 ft^3/s (3.57 m^3/s) June 22 at 0615, gage height, 2.74 ft (0.835 m), no other peak above base of 100 ft^3/s (2.83 m^3/s); minimum daily, 10 ft^3/s (0.28 m^3/s) July 17-19, Aug. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	18	22	19	22	22	28	23	26	14	11	13
2	13	18	22	20	22	24	28	23	23	15	11	13
3	14	18	22	20	24	26	28	22	22	15	11	12
4	14	18	22	20	23	25	27	22	22	15	11	12
5	15	17	24	18	23	27	29	24	22	14	11	12
6	15	17	24	15	23	24	30	23	21	13	11	11
7	15	18	24	12	23	24	30	23	22	13	10	11
8	15	18	23	13	22	24	29	22	22	13	11	11
9	17	17	23	16	20	24	28	22	21	12	17	12
10	17	17	24	20	21	24	28	22	21	12	14	12
11	16	17	21	24	22	25	28	26	20	11	16	11
12	16	17	20	26	24	32	28	28	19	11	13	11
13	16	17	21	26	22	26	28	29	19	12	13	12
14	17	17	22	25	21	26	27	25	19	12	13	12
15	16	17	23	24	21	32	27	24	19	11	14	12
16	17	17	20	21	20	37	27	26	20	11	16	12
17	17	17	20	21	22	36	27	25	21	10	14	13
18	17	18	20	21	22	30	26	24	19	10	13	13
19	17	17	20	21	22	28	27	24	20	10	12	13
20	17	17	20	22	28	28	26	23	20	11	13	13
21	18	12	19	24	29	28	27	22	19	11	13	13
22	18	16	19	26	39	27	27	21	42	11	12	13
23	16	19	19	28	25	26	28	21	19	11	12	13
24	17	19	19	30	22	26	27	24	17	11	12	13
25	17	18	19	27	22	26	25	23	16	12	12	14
26	17	18	19	25	21	27	25	21	16	17	12	14
27	17	19	19	23	29	27	25	21	16	14	13	13
28	16	20	19	20	53	29	24	21	15	13	12	13
29	18	19	19	20	29	29	23	21	15	12	12	13
30	20	19	18	21	---	28	23	22	15	11	12	13
31	18	---	17	21	---	28	---	23	---	11	14	---
TOTAL	506	526	643	669	716	845	810	720	608	379	391	373
MEAN	16.3	17.5	20.7	21.6	24.7	27.3	27.0	23.2	20.3	12.2	12.6	12.4
MAX	20	20	24	30	53	37	30	29	42	17	17	14
MIN	13	12	17	12	20	22	23	21	15	10	10	11
AC-FT	1000	1040	1280	1330	1420	1680	1610	1430	1210	752	776	740

CAL YR 1979 TOTAL 7056 MEAN 19.3 MAX 94 MIN 11 AC-FT 14000
WTR YR 1980 TOTAL 7186 MEAN 19.6 MAX 53 MIN 10 AC-FT 14250

06453500 PONCA CREEK AT ANOKA, NE

LOCATION (REVISED).--Lat 42°56'34", long 98°50'25", in NE1/4 sec.9, T.34 N., R.13 W., Boyd County, Hydrologic Unit 10150001, on downstream side of left pier of bridge on State Highway 11, 0.5 mi (0.8 km) southwest of Anoka and 0.5 mi (0.8 km) upstream from Dry Creek.

DRAINAGE AREA.--505 mi² (1,308 km²).

PERIOD OF RECORD.--March 1949 to current year.

REVISED RECORDS.--WSP 2117: Drainage area.

GAGE.--Water-stage recorder for stages above 0.4 ft (0.12 m) and nonrecording gage read once daily. Altitude of gage is 1,630 ft (497 m), from topographic map. Prior to Sept. 13, 1950, nonrecording gage at same site and datum.

REMARKS.--Records good except those for Nov. 9 to Mar. 14, which are poor.

AVERAGE DISCHARGE.--31 years, 44.9 ft³/s (1.272 m³/s), 32,530 acre-ft/yr (40.1 hm³/yr); median of yearly mean discharges, 30 ft³/s (0.850 m³/s), 21,700 acre-ft/yr (26.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,810 ft³/s (278 m³/s) Mar. 27, 1960, gage height, 16.86 ft (5.139 m); no flow at times in 1949-50, 1955-62, 1965-71, 1974-76, 1978-80.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 52 ft³/s (1.47 m³/s) Apr. 4, gage height, 2.49 ft (0.759 m), no peak above base of 500 ft³/s (14.2 m³/s); maximum gage height, 4.38 ft (1.335 m) Feb. 26, backwater from ice; no flow Oct. 1-20, July 13 to Aug. 14, Aug. 17-25, 27-30, Sept. 1-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	4.9	2.0	5.8	4.8	7.4	22	8.3	13	.27	.00	.00
2	.00	3.2	1.9	5.2	4.9	8.0	23	7.6	9.4	.20	.00	.00
3	.00	2.6	2.8	4.5	5.0	9.2	32	7.3	6.6	.18	.00	.00
4	.00	1.4	3.6	4.7	5.2	10	45	7.0	5.0	.20	.00	.00
5	.00	2.1	4.8	3.8	4.9	9.0	32	6.6	4.7	.18	.00	.00
6	.00	1.6	5.8	2.8	4.8	10	24	6.3	4.1	.18	.00	.00
7	.00	1.6	5.4	1.9	4.7	10	19	5.7	9.1	.14	.00	.00
8	.00	1.1	5.0	2.2	4.4	12	17	5.7	5.7	.12	.00	.00
9	.00	1.0	6.0	2.6	4.2	14	15	5.7	5.0	.12	.00	.00
10	.00	.90	6.4	2.5	4.6	15	12	5.7	4.1	.05	.00	.00
11	.00	1.2	5.8	2.3	4.4	15	11	5.4	3.2	.05	.00	.00
12	.00	1.5	5.0	2.2	4.7	14	10	6.0	2.7	.01	.00	.00
13	.00	2.0	5.8	3.4	4.6	17	9.4	7.3	2.7	.00	.00	.00
14	.00	2.5	6.0	3.6	4.5	18	13	6.6	2.1	.00	.00	.00
15	.00	2.8	5.8	3.9	4.3	21	13	6.6	3.2	.00	.01	.00
16	.00	2.8	4.0	3.8	4.2	23	12	6.6	2.4	.00	.31	.00
17	.00	3.0	3.0	4.0	3.9	25	12	7.3	1.8	.00	.00	.00
18	.00	2.8	5.6	4.1	4.4	27	11	7.3	1.2	.00	.00	.00
19	.00	2.8	5.4	3.8	5.0	29	11	7.3	.99	.00	.00	.00
20	.00	2.8	5.3	3.7	6.2	26	11	7.3	.99	.00	.00	.00
21	.03	2.6	5.0	3.9	6.5	20	9.8	6.6	.74	.00	.00	.00
22	.68	2.4	5.2	3.7	7.0	20	9.1	6.0	.99	.00	.00	.00
23	.15	2.2	5.0	4.1	7.0	18	9.1	5.4	.74	.00	.00	.00
24	.08	2.0	4.7	4.4	7.8	16	9.4	5.0	.58	.00	.00	.00
25	.08	2.1	5.0	4.9	7.0	16	9.4	4.7	.58	.00	.00	.00
26	.08	2.2	5.8	4.3	8.6	14	8.7	4.1	.58	.00	.07	.00
27	.08	2.3	6.0	4.1	9.6	12	8.7	3.8	.45	.00	.00	.00
28	.06	2.0	5.6	4.7	8.6	13	11	3.5	.27	.00	.00	.00
29	.15	2.0	5.2	5.6	8.0	15	9.4	4.1	.24	.00	.00	.00
30	1.9	2.2	5.4	5.0	---	16	8.7	8.3	.24	.00	.00	.00
31	5.7	---	5.6	4.6	---	19	---	16	---	.00	.01	---
TOTAL	8.99	66.60	153.9	120.1	163.8	498.6	447.7	201.1	93.39	1.70	.40	.00
MEAN	.29	2.22	4.96	3.87	5.65	16.1	14.9	6.49	3.11	.055	.013	.000
MAX	5.7	4.9	6.4	5.8	9.6	29	45	16	13	.27	.31	.00
MIN	.00	.90	1.9	1.9	3.9	7.4	8.7	3.5	.24	.00	.00	.00
AC-FT	18	132	305	238	325	989	888	399	185	3.4	.8	.00

CAL YR 1979 TOTAL 4125.43 MEAN 11.3 MAX 128 MIN .00 AC-FT 8180
WTR YR 1980 TOTAL 1756.28 MEAN 4.80 MAX 45 MIN .00 AC-FT 3480

06453600 PONCA CREEK AT VERDEL, NE

LOCATION.--Lat 42°48'40", long 98°10'35", in NE1/4NE1/4 sec.30, T.33 N., R.7 W., Knox County, Hydrologic Unit 10150001, near left bank at left downstream end of bridge on State Highway 12, 0.6 mi (1.0 km) east of Verdel and 3.1 mi (5.0 km) upstream from mouth.

DRAINAGE AREA.--812 mi^2 (2,103 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1957 to current year.

REVISED RECORDS.--WSP 2117: Drainage area.

GAGE.--Water-stage recorder and nonrecording gage read once daily. Datum of gage is 1,232.9 ft (375.79 m) National Geodetic Vertical Datum of 1929 (Nebraska Department of Highways reference marks). See WSP 1917 for history of changes prior to Nov. 15, 1962.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--23 years, 70.6 ft^3/s (1.999 m^3/s), 51,150 acre-ft/yr (63.1 hm^3/yr); median of yearly mean discharges, 52 ft^3/s (1.473 m^3/s), 37,700 acre-ft/yr (46.5 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,700 ft^3/s (445 m^3/s) Mar. 27, 1960, gage height, 15.10 ft (4.602 m), site and datum then in use; no flow for many days in 1957-60, 1965-72, 1974-77, 1979-80.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 142 ft^3/s (4.02 m^3/s) Apr. 4, gage height, 2.24 ft (0.683 m), no peak above base of 800 ft^3/s (22.7 m^3/s); maximum gage height, 6.79 ft (2.070 m) Feb. 27, ice jam; no flow Oct. 1-17, July 7 to Aug. 9, Aug. 11 to Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	22	5.4	8.8	9.2	12	60	22	26	1.3	.00	.00
2	.00	21	5.0	8.0	9.4	13	59	22	25	1.3	.00	.00
3	.00	15	6.6	7.4	9.6	15	80	20	19	1.3	.00	.00
4	.00	13	8.4	7.8	10	16	126	19	16	.92	.00	.00
5	.00	13	9.6	7.2	9.6	15	133	18	13	.40	.00	.00
6	.00	14	11	6.6	9.4	16	104	18	12	.11	.00	.00
7	.00	11	10	5.0	9.2	16	82	16	13	.00	.00	.00
8	.00	11	9.4	5.8	8.6	18	64	16	14	.00	.00	.00
9	.00	9.4	10	5.8	8.4	21	56	16	15	.00	.00	.00
10	.00	10	11	6.6	9.4	22	52	17	12	.00	.15	.00
11	.00	12	9.6	6.0	9.0	22	47	16	9.1	.00	.00	.00
12	.00	12	8.8	5.8	9.6	21	41	15	7.7	.00	.00	.00
13	.00	10	9.6	8.0	9.4	25	37	19	7.4	.00	.00	.00
14	.00	12	10	8.4	9.2	35	36	19	7.0	.00	.00	.00
15	.00	11	9.4	9.0	8.8	50	35	18	13	.00	.00	.00
16	.00	11	7.0	8.8	8.6	60	39	18	9.1	.00	.00	.00
17	.00	12	5.6	9.2	8.0	80	36	23	7.4	.00	.00	.00
18	.04	11	8.8	9.4	9.0	83	35	22	6.3	.00	.00	.00
19	.97	11	8.4	8.6	9.6	82	34	21	5.5	.00	.00	.00
20	3.1	11	8.4	8.4	11	70	33	19	4.6	.00	.00	.00
21	2.4	10	8.2	9.0	11	55	32	16	4.4	.00	.00	.00
22	3.9	8.4	8.4	8.6	12	49	30	15	4.6	.00	.00	.00
23	4.1	7.4	8.0	9.4	12	45	27	13	4.4	.00	.00	.00
24	4.9	6.4	7.6	10	13	41	26	12	4.2	.00	.00	.00
25	5.1	7.0	8.0	11	12	40	26	12	3.9	.00	.00	.00
26	5.1	7.6	8.8	9.4	14	41	25	12	3.2	.00	.00	.00
27	5.2	6.8	9.0	9.0	15	43	25	12	2.7	.00	.00	.00
28	5.1	6.4	8.6	10	14	41	24	12	1.9	.00	.00	.00
29	4.6	5.8	8.2	11	13	49	22	11	1.6	.00	.00	.00
30	10	6.4	8.4	9.6	---	53	23	13	1.5	.00	.00	.00
31	23	---	8.6	8.6	---	54	---	36	---	.00	.00	---
TOTAL	77.51	324.6	263.8	256.2	301.0	1203	1449	538	274.5	5.33	.15	.00
MEAN	2.50	10.8	8.51	8.26	10.4	38.8	48.3	17.4	9.15	.17	.005	.000
MAX	23	22	11	11	15	83	133	36	26	1.3	.15	.00
MIN	.00	5.8	5.0	5.0	8.0	12	22	11	1.5	.00	.00	.00
AC-FT	154	644	523	508	597	2390	2870	1070	544	11	.3	.00

CAL YR 1979 TOTAL 11081.97 MEAN 30.4 MAX 380 MIN .00 AC-FT 21980
WTR YR 1980 TOTAL 4693.09 MEAN 12.8 MAX 133 MIN .00 AC-FT 9310

PONCA CREEK BASIN

06453600 PONCA CREEK AT VERDEL, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--July 1975 to September 1980 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV 06...	1515	14	1120	8.2	6.0	7	10.2	4.6	290	3600
DEC 18...	1025	9.2	1480	7.3	.5	3	9.2	5.5	K52	480
JAN 29...	1000	11	1560	7.3	.5	6	9.8	2.0	K11	120
FEB 20...	0925	11	1300	7.2	.5	3	9.8	5.8	K15	390
MAR 19...	1300	85	910	7.7	10.0	85	12.1	3.6	K41	400
APR 22...	0850	27	1260	7.8	16.0	10	10.5	3.1	K49	200
MAY 13...	0915	19	1180	7.9	11.5	10	10.9	1.6	670	1200
JUN 24...	0845	4.2	1350	7.9	23.0	15	8.8	2.4	K4	580

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
NOV 06...	14	861	1.17	32.8	.43	.06	.58	.64	1.1	.030
DEC 18...	19	1240	1.69	30.8	.54	.06	1.0	1.1	1.6	.020
JAN 29...	18	1300	1.77	38.6	.52	.04	.47	.51	1.0	.020
FEB 20...	15	961	1.31	29.3	.62	.12	.40	.52	1.1	.020
MAR 19...	9.1	688	.94	159	.49	.32	1.3	1.6	2.1	.290
APR 22...	14	1010	1.37	75.3	.07	.01	.65	.66	.73	.040
MAY 13...	12	903	1.23	47.1	.02	.03	.94	.97	.99	.020
JUN 24...	16	1080	1.47	12.2	.17	.07	.70	.77	.94	.050

06453600 PONCA CREEK AT VERDEL, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLOR (PLAT-INUM COBALT UNITS) (00080)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
NOV											
06...	1515	5	550	370	160	36	38	.7	12	180	440
FEB											
20...	0925	5	610	390	180	40	39	.7	11	220	470
MAY											
13...	0915	5	580	410	160	43	45	.8	12	170	490

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)
NOV										
06...	.3	12	823	.43	.010	1	40	180	<1	0
FEB										
20...	.3	14	905	.60	.020	--	--	160	--	--
MAY										
13...	.3	9.9	875	.02	.000	1	50	190	<1	0

DATE	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG) (71895)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV										
06...	0	<10	0	50	.1	.1	.0	5	0	7
FEB										
20...	--	10	--	190	--	--	--	--	--	--
MAY										
13...	2	<10	0	30	.1	.0	.1	7	0	10

06454000 NIOBRARA RIVER AT WYOMING-NEBRASKA STATE LINE

LOCATION.--Lat 42°39'33", long 104°03'54", in SE1/4SW1/4 sec.15, T.31 N., R.60 W., Niobrara County, Wyoming, Hydrologic Unit 10150002, on left bank 0.2 mi (0.3 km) downstream from Van Tassel Creek, 0.3 mi (0.5 km) upstream from Wyoming-Nebraska State line, and 3 mi (5 km) east of Van Tassel, WY.

DRAINAGE AREA.--450 mi² (1,170 km²), approximately.

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,687.70 ft (1,428.811 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Diversions for irrigation of about 4,700 acres (19.0 km²) above station.

AVERAGE DISCHARGE.--25 years, 4.05 ft³/s (0.115 m³/s), 2,930 acre-ft/yr (3.61 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,120 ft³/s (60.0 m³/s) Aug. 16, 1977, gage height, 8.28 ft (2.524 m) in gage well, from rating curve extended above 800 ft³/s (22.7 m³/s) on basis of computation of peak flow from slope-area measurement; minimum daily, 0.54 ft³/s (0.015 m³/s) Aug. 9, 10, 12, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 51 ft³/s (1.44 m³/s) Mar. 20 at 1145, gage height, 2.55 ft (0.777 m), no other peak above base of 20 ft³/s (0.57 m³/s); maximum gage height, 3.79 ft (1.155 m) Nov. 30, backwater from ice; minimum daily discharge, 0.92 ft³/s (0.026 m³/s) Aug. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	2.1	2.5	2.6	3.5	4.5	7.0	3.5	3.9	1.9	1.2	1.9
2	2.0	2.0	3.0	2.6	3.5	4.6	6.7	3.5	3.5	1.8	1.1	1.9
3	2.0	2.1	2.8	2.6	3.4	3.7	6.7	3.5	3.3	1.7	.99	1.8
4	2.0	2.1	2.9	2.6	3.4	3.5	7.0	3.5	3.1	1.6	.92	1.9
5	2.0	2.1	3.1	2.6	3.4	4.0	7.0	3.3	3.0	1.6	1.0	1.9
6	2.1	2.2	3.2	2.6	3.5	4.5	6.7	3.4	2.9	1.5	1.9	1.7
7	2.1	2.3	3.1	2.6	3.5	5.0	6.5	3.2	2.9	1.4	1.8	1.9
8	2.1	2.4	3.1	2.7	3.4	8.8	5.8	3.1	2.8	1.5	1.8	1.9
9	2.1	2.4	3.1	2.7	3.4	6.2	5.4	3.1	2.8	1.3	2.9	2.0
10	2.1	2.4	3.2	2.7	3.2	7.0	6.0	3.5	2.7	1.3	2.9	2.0
11	2.1	2.5	3.2	2.5	3.0	7.3	5.9	4.2	2.4	1.5	2.2	1.8
12	2.0	2.4	3.1	2.8	2.9	6.8	6.1	4.9	2.2	1.5	1.6	1.6
13	2.0	2.4	3.1	2.7	2.9	6.0	5.8	4.2	2.2	2.3	1.6	1.7
14	2.1	2.2	2.9	2.8	2.8	10	5.6	3.8	2.2	1.8	1.4	1.8
15	2.1	2.3	3.1	2.8	3.0	12	5.1	4.7	2.2	1.8	1.8	1.8
16	1.9	2.4	2.9	2.8	3.5	15	5.1	7.5	2.3	1.5	1.9	1.7
17	2.0	2.5	2.8	2.6	3.4	18	4.7	7.1	2.4	1.5	1.6	1.7
18	2.1	2.7	2.8	2.4	3.1	20	4.5	6.5	2.4	1.6	1.5	1.6
19	2.1	2.7	2.8	2.5	3.1	16	4.4	5.9	2.3	2.0	1.5	1.7
20	2.1	2.6	2.8	2.4	3.2	12	4.0	5.2	2.2	1.6	1.6	1.7
21	2.1	2.5	2.9	2.5	5.1	13	4.0	5.0	2.7	2.1	1.6	1.9
22	2.1	2.4	2.9	2.3	4.3	12	3.8	4.7	3.0	1.9	1.6	1.9
23	2.1	2.4	2.9	2.4	4.1	12	3.9	4.3	2.4	2.0	1.6	1.9
24	2.0	2.4	2.9	2.7	4.1	11	3.9	4.2	2.2	1.7	1.8	1.9
25	2.0	2.5	2.9	2.7	5.1	10	3.7	4.0	2.0	2.1	1.8	2.1
26	2.0	2.5	2.8	2.7	6.1	9.7	3.7	3.7	2.1	3.5	1.8	2.2
27	2.0	2.5	2.8	2.7	6.3	8.9	3.6	4.1	2.1	2.2	1.9	2.1
28	2.0	2.4	2.9	2.7	6.3	7.9	3.5	5.9	2.1	1.7	1.8	2.1
29	2.0	2.3	2.9	2.6	4.5	7.3	3.5	4.1	2.1	1.5	1.8	2.0
30	2.1	2.2	2.8	2.7	---	7.3	3.7	4.0	2.0	1.3	1.8	1.9
31	2.1	---	2.7	3.5	---	7.0	---	4.1	---	1.2	1.9	---
TOTAL	63.5	70.9	90.9	82.1	111.0	281.0	153.3	135.7	76.4	53.9	52.61	56.0
MEAN	2.05	2.36	2.93	2.65	3.83	9.06	5.11	4.38	2.55	1.74	1.70	1.87
MAX	2.1	2.7	3.2	3.5	6.3	20	7.0	7.5	3.9	3.5	2.9	2.2
MIN	1.9	2.0	2.5	2.3	2.8	3.5	3.5	3.1	2.0	1.2	.92	1.6
AC-FT	126	141	180	163	220	557	304	269	152	107	104	111

CAL YR 1979 TOTAL 920.20 MEAN 2.52 MAX 4.3 MIN 1.0 AC-FT 1830
WTR YR 1980 TOTAL 1227.31 MEAN 3.35 MAX 20 MIN .92 AC-FT 2430

06454100 NIOBRARA RIVER AT AGATE, NE

LOCATION.--Lat 42°25'22", long 103°47'28", in SW1/4 sec.6, T.28 N., R.55 W., Sioux County, Hydrologic Unit 10150002, on right bank 10 ft (3 m) upstream from timber farm-vehicle bridge, 300 ft (91 m) upstream from bridge on State Highway 29, 0.2 mi (0.3 km) northwest of Agate, and 14.5 mi (23.3 km) upstream from Whistle Creek.

DRAINAGE AREA.--840 mi² (2,180 km²), approximately.

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,440 ft (1,353 m), from topographic map. Prior to Nov. 3, 1960, nonrecording gage at present site and datum.

REMARKS.--Records good. Diversions for irrigation of about 6,700 acres (27.1 km²) above station.

AVERAGE DISCHARGE.--23 years, 14.1 ft³/s (0.399 m³/s), 10,220 acre-ft/yr (12.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 181 ft³/s (5.13 m³/s) June 23, 1959, gage height, 5.00 ft (1.524 m), from floodmark; minimum daily, 1.0 ft³/s (0.028 m³/s) Mar. 29, 1975.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 35 ft³/s (0.99 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
(a)	unknown	*66	1.9	b3.90	1.189	Mar. 18	1000	56	1.6	3.80	1.158
Feb. 28	1645	48	1.4	3.61	1.100						

a Feb. 25 or 26.

b From high-water mark.

Minimum daily, 2.3 ft³/s (0.065 m³/s) Nov. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	12	5.0	15	12	21	30	16	15	6.8	5.6	10
2	9.0	12	5.1	15	12	23	29	16	15	7.0	5.4	9.6
3	9.1	13	5.3	15	13	24	28	15	13	7.5	5.2	9.1
4	9.5	13	6.0	15	13	16	28	15	12	7.2	5.1	8.8
5	9.6	13	10	15	13	17	28	15	11	6.8	5.2	8.7
6	9.6	13	10	14	13	17	27	14	11	6.5	5.0	8.5
7	9.6	14	11	9.1	14	16	27	14	11	6.4	5.0	8.4
8	9.7	13	11	9.3	13	18	28	14	11	6.7	5.4	8.3
9	11	13	13	10	13	20	28	15	11	6.1	7.0	8.3
10	11	13	14	11	13	22	27	18	10	5.3	7.1	8.1
11	11	13	14	12	13	32	26	23	11	5.2	6.9	8.4
12	11	13	11	13	13	33	25	23	11	5.1	6.6	8.3
13	11	13	11	15	13	30	23	21	11	6.0	7.6	8.7
14	11	13	12	18	13	28	23	21	11	6.0	6.8	8.5
15	11	13	13	18	14	29	22	19	11	5.5	9.1	8.1
16	11	13	13	17	14	31	20	18	11	5.6	11	8.5
17	11	13	10	18	14	32	19	17	12	5.6	11	8.9
18	11	13	11	18	14	43	17	16	11	5.5	10	8.6
19	11	14	13	15	15	39	17	16	11	5.6	9.9	8.4
20	11	8.8	14	13	16	28	17	15	12	6.1	10	8.6
21	11	2.6	14	15	18	29	17	14	11	7.2	9.8	8.5
22	11	2.4	14	15	22	34	16	13	11	9.0	9.6	7.3
23	11	2.6	15	15	24	32	17	12	11	9.6	9.5	6.5
24	11	2.3	15	15	26	33	17	14	9.2	9.3	9.3	6.8
25	11	6.4	15	16	28	33	16	15	8.6	9.3	9.1	7.1
26	11	9.3	16	13	30	33	16	14	8.4	11	8.9	7.0
27	10	8.4	16	12	30	30	16	13	8.4	10	9.5	7.0
28	10	6.9	16	13	29	30	16	13	7.9	8.5	9.2	7.0
29	11	6.2	16	13	22	30	15	12	7.9	6.5	8.9	7.0
30	12	5.4	16	12	---	30	16	15	7.3	6.3	8.9	6.9
31	12	---	15	10	---	31	---	14	---	5.9	10	---
TOTAL	328.1	308.3	380.4	434.4	497	864	651	490	322.7	215.1	247.6	243.9
MEAN	10.6	10.3	12.3	14.0	17.1	27.9	21.7	15.8	10.8	6.94	7.99	8.13
MAX	12	14	16	18	30	43	30	23	15	11	11	10
MIN	9.0	2.3	5.0	9.1	12	16	15	12	7.3	5.1	5.0	6.5
AC-FT	651	612	755	862	986	1710	1290	972	640	427	491	484

CAL YR 1979 TOTAL 4355.5 MEAN 11.9 MAX 35 MIN 2.3 AC-FT 8640
WTR YR 1980 TOTAL 4982.5 MEAN 13.6 MAX 43 MIN 2.3 AC-FT 9880

06454500 NIOBRARA RIVER ABOVE BOX BUTTE RESERVOIR, NE

LOCATION.--Lat 42°27'35", long 103°10'15", in NE1/4 sec.27, T.29 N., R.50 W., Dawes County, Hydrologic Unit 10150002, on right bank 1 mi (2 km) upstream from high-water line of Box Butte Reservoir and 6 mi (10 km) east of Marsland.

DRAINAGE AREA.--1,400 mi^2 (3,630 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1946 to current year.

REVISED RECORDS.--WSP 1917: 1951, 1952(P), 1957(M).

GAGE.--Water-stage recorder. Concrete control since Oct. 12, 1953. Datum of gage is 4,012.47 ft (1,223.001 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 27, 1949, nonrecording gage at present site and datum.

REMARKS.--Records good. Diversions for irrigation of about 12,800 acres (51.8 km^2) above station.

AVERAGE DISCHARGE.--34 years, 30.0 ft^3/s (0.850 m^3/s), 21,740 acre-ft/yr (26.8 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,950 ft^3/s (140 m^3/s) July 28, 1951, gage height, 10.30 ft (3.139 m), from rating curve extended above 230 ft^3/s (6.51 m^3/s) on basis of step-backwater analysis and slope-area measurement at gage height 9.22 ft (2.810 m); minimum daily, 1.6 ft^3/s (0.045 m^3/s) Sept. 26, 1953.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 100 ft^3/s (2.83 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Dec. 1	1400	ice jam		*5.93	1.807	Feb. 29	0100	103	2.9	4.15	1.265
Feb. 21	1730	*151	4.3	5.06	1.542						

Minimum daily discharge, 6.0 ft^3/s (0.17 m^3/s) July 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	23	14	27	26	62	80	38	18	8.5	7.0	16
2	20	24	14	27	24	65	79	38	18	9.5	7.5	17
3	19	28	15	27	24	64	79	38	18	12	7.5	16
4	18	32	15	28	25	56	79	38	16	19	7.0	16
5	19	34	16	27	25	54	80	38	15	15	7.5	15
6	18	33	18	24	26	48	79	38	15	10	7.5	16
7	15	32	19	20	27	51	73	38	15	6.0	7.5	16
8	15	32	18	22	24	48	70	38	15	8.0	7.5	16
9	16	32	19	22	24	55	65	37	16	8.0	36	17
10	16	32	22	24	24	58	62	37	16	8.0	26	18
11	16	33	20	24	25	61	60	43	15	8.0	46	18
12	15	32	20	22	25	68	56	47	15	7.5	26	16
13	15	32	22	24	24	67	55	50	15	8.0	26	15
14	15	32	23	27	24	73	55	50	14	8.0	23	15
15	16	32	22	30	24	74	55	50	19	14	24	15
16	18	33	21	28	23	81	53	50	13	12	43	15
17	16	33	23	27	23	78	52	48	11	12	28	15
18	16	33	26	27	27	80	47	46	12	12	18	15
19	17	35	26	26	27	85	45	43	12	12	12	15
20	18	28	27	26	31	88	43	42	12	12	13	15
21	20	24	27	26	83	76	41	39	13	12	12	12
22	20	20	27	26	65	72	43	34	19	12	13	8.5
23	20	24	27	26	53	72	43	27	9.0	13	14	10
24	20	24	25	27	54	72	43	26	10	16	13	10
25	20	24	24	27	65	68	43	26	10	15	12	9.5
26	21	19	28	24	82	66	43	24	9.5	17	11	9.5
27	22	15	26	24	89	66	42	23	10	17	11	10
28	22	13	27	24	90	68	42	20	10	15	11	10
29	24	13	28	25	83	69	41	20	10	15	17	15
30	24	14	27	26	---	71	38	19	9.0	14	17	16
31	23	---	26	26	---	77	---	15	---	14	16	---
TOTAL	573	815	692	790	1166	2093	1686	1120	409.5	369.5	527.0	427.5
MEAN	18.5	27.2	22.3	25.5	40.2	67.5	56.2	36.1	13.7	11.9	17.0	14.3
MAX	24	35	28	30	90	88	80	50	19	19	46	18
MIN	15	13	14	20	23	48	38	15	9.0	6.0	7.0	8.5
AC-FT	1140	1620	1370	1570	2310	4150	3340	2220	812	733	1050	848

CAL YR 1979 TOTAL 9302.5 MEAN 25.5 MAX 80 MIN 6.5 AC-FT 18450
WTR YR 1980 TOTAL 10668.5 MEAN 29.1 MAX 90 MIN 6.0 AC-FT 21160

06454500 NIOBRARA RIVER ABOVE BOX BUTTE RESERVOIR, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--July 1975 to September 1980 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 29...	1100	23	410	8.1	5.0	20	9.8	2.6	150	370
NOV 27...	1055	16	380	8.0	1.0	15	12.5	2.6	K14	60
DEC 18...	1130	24	420	8.0	4.0	15	10.9	3.0	K10	46
JAN 28...	1130	24	457	7.7	.5	10	11.4	1.0	K1	40
FEB 25...	1030	54	300	8.4	1.5	20	10.2	10	K6	K10000
MAR 24...	1100	72	375	8.5	8.5	15	10.7	3.3	30	K9
APR 23...	1145	43	410	8.6	10.0	10	9.2	1.7	83	32
MAY 27...	1115	23	420	8.2	18.5	10	8.4	2.2	K10	65
JUN 24...	1100	10	425	8.4	20.0	13	9.0	3.7	K60	170
JUL 28...	0730	15	400	8.1	17.5	15	9.1	6.2	--	460
AUG 25...	1100	12	385	8.2	18.5	15	9.0	2.2	140	97
SEP 23...	1100	10	385	8.3	11.5	15	10.1	3.6	87	140

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT 29...	5.9	300	.41	19.1	1.2	.05	.68	.73	1.9	.040
NOV 27...	4.2	261	.36	11.3	1.3	.04	--	--	--	.040
DEC 18...	7.2	332	.45	21.7	1.2	.05	.47	.52	1.7	.030
JAN 28...	4.7	314	.43	20.5	.58	.02	.60	.62	1.2	.040
FEB 25...	6.5	231	.31	34.0	1.3	.24	2.0	2.2	3.5	.230
MAR 24...	4.2	297	.40	57.7	.21	.00	.87	.87	1.1	.060
APR 23...	7.6	298	.41	34.6	.46	.01	.76	.77	1.2	.030
MAY 27...	4.3	294	.40	18.7	.74	.02	.71	.73	1.5	.050
JUN 24...	6.0	298	.41	8.69	.03	.03	.79	.82	.85	.020
JUL 28...	4.8	268	.36	11.0	.75	.01	.89	.90	1.7	.290
AUG 25...	4.6	270	.37	9.26	.94	.04	.30	.34	1.3	.020
SEP 23...	11	303	.41	8.34	.98	.00	.51	.51	1.5	.030

06454500 NIOBRARA RIVER ABOVE BOX BUTTE RESERVOIR, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLOR (PLATINUM COBALT UNITS) (00080)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)
NOV 27...	1055	5	150	0	46	9.5	27	.9	6.4	180	21
FEB 25...	1030	80	110	0	33	6.7	20	.8	11	140	15
MAY 27...	1115	0	160	0	47	9.2	26	.9	7.1	190	13
AUG 25...	1100	5	150	0	46	8.8	26	.9	7.7	180	12

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)
NOV 27...	.8	53	283	1.3	.010	8	100	50	1	20
FEB 25...	.5	35	216	1.0	.090	--	--	90	--	--
MAY 27...	.8	50	275	.73	.010	9	100	50	<1	0
AUG 25...	.7	53	271	.76	.010	--	--	100	--	--

DATE	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG) (71895)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
NOV 27...	2	10	0	6	.1	.1	.0	1	0	6
FEB 25...	--	70	--	6	--	--	--	--	--	--
MAY 27...	4	20	3	10	.1	.1	.0	1	0	7
AUG 25...	--	120	--	20	--	--	--	--	--	--

06455000 BOX BUTTE RESERVOIR NEAR HEMINGFORD, NE

LOCATION.--Lat 42°27'30", long 103°04'03", in sec.28, T.29 N., R.49 W., Dawes County, Hydrologic Unit 10150002, in control tower on dam near left bank on Niobrara River, 9 mi (14 km) north of Hemingford.

DRAINAGE AREA.--1,460 mi^2 (3,780 km^2), approximately.

PERIOD OF RECORD.--October 1945 to current year.

GAGE.--Electric tape gage read three or more times a month. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by earthfill dam; outlet gate first closed Oct. 3, 1945. Usable capacity, 30,420 acre-ft (37.5 hm^3) between elevations 3,969.00 ft (1,209.751 m), sill of outlet gate, and 4,007.00 ft (1,221.334 m), crest of spillway. Dead storage, 640 acre-ft (0.789 hm^3). Figures given herein represent total contents. Water is used for irrigation of Mirage Flats project of Water and Power Rescuces Service.

COOPERATION.--Records of elevations and capacity table furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 32,210 acre-ft (39.7 hm^3) Mar. 26, 1948, elevation, 4,007.70 ft (1,221.547 m); minimum observed since operation of reservoir began, 764 acre-ft (0.942 hm^3) Aug. 23 to Sept. 14, 1976, elevation, 3,969.82 ft (1,210.001 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 19,540 acre-ft (24.1 hm^3) May 31, elevation, 3,998.84 ft (1,218.846 m); minimum observed, 3,520 acre-ft (4.34 hm^3) Sept. 5, elevation, 3,979.58 ft (1,212.976 m).

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

Date	Elevation (feet) a/	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	3,981.90	4,690	-
Oct. 31	3,984.19	5,990	+1,300
Nov. 30	3,986.47	7,480	+1,490
Dec. 31	3,988.25	8,810	+1,330
CAL YR 1979			+1,370
Jan. 31	3,990.10	10,360	+1,550
Feb. 29	3,992.12	12,220	+1,860
Mar. 31	3,995.55	15,710	+3,490
Apr. 30	3,997.77	18,240	+2,530
May 31	3,998.84	19,540	+1,300
June 30	3,998.03	18,550	-990
July 31	3,986.60	7,570	-10,980
Aug. 31	3,980.10	3,760	-3,810
Sept. 30	3,981.40	4,430	+670
WTR YR 1980	-	-	-260

a Elevations read on or near last day of month.

06455500 NIOBRARA RIVER BELOW BOX BUTTE RESERVOIR, NE

LOCATION.--Lat 42°27'25", long 103°04'05", in SE1/4 sec.28, T.29 N., R.49 W., Dawes County, Hydrologic Unit 10150003, on left bank 0.2 mi (0.3 km) downstream from Box Butte Reservoir and 9 mi (14 km) north of Hemingford.

DRAINAGE AREA.--1,460 mi² (3,780 km²), approximately.

PERIOD OF RECORD.--October 1946 to current year.

GAGE.--Water-stage recorder. Concrete control since Apr. 11, 1953. Datum of gage is 3,950.08 ft (1,203.984 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow completely regulated by Box Butte Reservoir (station 06455000).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 616 ft³/s (17.4 m³/s) July 2, 1968, gage height, 5.04 ft (1.536 m); minimum daily, 0.10 ft³/s (0.003 m³/s) for many days in 1947, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 217 ft³/s (6.15 m³/s) July 8, 9, gage height, 4.39 ft (1.338 m); minimum daily, 0.68 ft³/s (0.019 m³/s) Oct. 11-19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.74	.80	.74	.71	.77	.83	.89	.80	1.0	148	166	81
2	.74	.80	.74	.71	.77	.83	.89	.80	1.0	146	166	69
3	.74	.80	.74	.74	.77	.86	.89	.80	1.0	158	158	50
4	.74	.80	.80	.74	.77	.86	.95	.80	1.0	175	156	50
5	.71	.83	.74	.74	.77	.83	.95	.80	1.0	175	153	18
6	.71	.83	.74	.71	.77	.83	.95	.80	1.0	180	151	.95
7	.71	.83	.71	.80	.77	.83	.92	.80	1.0	189	151	.86
8	.71	.80	.71	.80	.77	.83	.89	.80	1.2	198	143	.86
9	.74	.80	.71	.80	.77	.83	.92	.80	1.2	217	55	.86
10	.74	.80	.74	.80	.77	.83	.86	.86	1.2	213	.89	.92
11	.68	.80	.81	.80	.77	.83	.86	1.0	1.2	213	.80	.89
12	.68	.80	.74	.83	.77	.83	.86	1.1	1.0	210	.74	.89
13	.68	.80	.74	.83	.77	.83	.86	1.0	.98	201	.71	.83
14	.68	.77	.74	.83	.77	.86	.86	.95	1.0	183	.71	.80
15	.68	.77	.71	.83	.77	.86	.92	.98	1.0	172	.89	.80
16	.68	.77	.71	.83	.77	.86	.89	.98	1.0	180	.86	.80
17	.68	.77	.71	.83	.77	.86	.89	.98	1.0	189	24	.80
18	.68	.77	.74	.83	.77	.86	.89	.98	1.0	183	65	.77
19	.68	.77	.74	.83	.77	.86	.89	.98	1.0	175	85	.77
20	.77	.74	.74	.83	.80	.83	.89	.95	1.0	172	108	.83
21	.77	.77	.74	.83	.86	.83	.89	.95	1.1	169	110	.80
22	.77	.86	.74	.77	.83	.83	.89	.95	1.0	161	104	.80
23	.77	.83	.71	.77	.83	.83	.89	.95	1.0	148	103	.83
24	.77	.80	.71	.77	.80	.86	.83	.98	.98	146	115	.83
25	.77	.77	.71	.77	.80	.86	.83	.95	.98	136	134	.74
26	.74	.77	.71	.77	.80	.89	.83	.92	1.0	125	141	.74
27	.74	.77	.71	.77	.83	.89	.80	.95	7.1	121	139	.74
28	.74	.77	.71	.77	.83	.89	.80	.95	57	131	127	.74
29	.86	.77	.71	.77	.83	.86	.80	1.0	58	156	112	.74
30	.83	.74	.71	.77	---	.86	.77	.98	93	164	92	.74
31	.80	---	.71	.77	---	.86	---	1.3	---	166	88	---
TOTAL	22.73	23.70	22.62	24.35	22.84	26.30	26.25	28.84	241.94	5300	2851.60	288.33
MEAN	.73	.79	.73	.79	.79	.85	.88	.93	8.06	171	92.0	9.61
MAX	.86	.86	.81	.83	.86	.89	.95	1.3	93	217	166	81
MIN	.68	.74	.71	.71	.77	.83	.77	.80	.98	121	.71	.74
AC-FT	45	47	45	48	45	52	52	57	480	10510	5660	572

CAL YR 1979 TOTAL 6890.32 MEAN 18.9 MAX 195 MIN .52 AC-FT 13670
WTR YR 1980 TOTAL 8879.50 MEAN 24.3 MAX 217 MIN .68 AC-FT 17610

06457500 NIOBRARA RIVER NEAR GORDON, NE

LOCATION.--Lat 42°38'00", long 102°12'40", in NE1/4 sec.26, T.31 N., R.42 W., Sheridan County, Hydrologic Unit 10150003, on left bank 250 ft (76 m) upstream from bridge on State Highway 27, 4 mi (6 km) downstream from Bush Creek, and 11 mi (18 km) south of Gordon.

DRAINAGE AREA.--4,290 mi^2 (11,100 km^2), approximately.

PERIOD OF RECORD.--August 1928 to September 1932, October 1945 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WDR NE-67: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,433.49 ft (1,046.528 m) National Geodetic Vertical Datum of 1929. Aug. 24, 1928, to June 30, 1932 nonrecording gage at bridge 4 mi (6 km) downstream at different datum. Dec. 3, 1945, to Mar. 24, 1970, water-stage recorder at datum 1.0 ft (0.30 m) higher.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by storage in Box Butte Reservoir (station 06455000) for irrigation of Mirage Flats project and return flow from irrigated land.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,130 ft^3/s (259 m^3/s) May 21, 1962, gage height, 5.25 ft (1.600 m); minimum daily, 16 ft^3/s (0.45 m^3/s) Dec. 20, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 910 ft^3/s (25.8 m^3/s) Feb. 22, gage height, 1.77 ft (0.539 m); maximum gage height, 2.54 ft (0.774 m) Nov. 21, backwater from ice; minimum daily discharge, 42 ft^3/s (1.19 m^3/s) July 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	103	160	140	130	210	186	113	133	65	42	80
2	83	101	168	142	130	215	196	112	127	65	48	77
3	85	116	125	125	135	215	196	110	116	66	47	69
4	91	118	131	125	140	210	196	108	106	66	45	70
5	91	118	131	125	150	205	214	108	92	66	49	69
6	88	118	133	110	140	200	241	106	90	64	51	67
7	90	109	102	105	140	190	275	101	99	62	47	75
8	87	112	85	100	135	190	255	104	100	65	47	74
9	93	112	80	96	125	185	223	104	103	67	109	78
10	97	107	82	105	115	185	198	103	101	64	164	78
11	107	98	90	120	110	185	186	157	95	64	188	72
12	108	104	90	150	110	190	170	174	80	63	168	70
13	108	108	86	160	105	180	145	151	74	91	91	69
14	103	109	90	150	95	170	136	159	72	57	75	77
15	105	104	88	150	80	171	130	145	80	50	88	68
16	104	99	80	145	80	181	124	151	91	46	95	83
17	108	103	88	140	90	185	124	151	91	52	85	82
18	110	99	100	135	105	176	144	149	82	45	69	84
19	107	104	110	130	110	172	155	140	94	44	60	75
20	103	97	120	130	140	160	140	130	106	46	72	85
21	112	95	125	130	180	149	132	121	91	55	65	82
22	117	92	135	135	710	138	122	109	90	61	60	73
23	105	96	140	140	461	139	120	103	85	57	58	69
24	101	100	155	125	265	143	123	102	80	52	58	77
25	93	94	164	145	220	144	121	101	75	63	67	84
26	91	110	168	110	220	146	120	96	70	68	66	76
27	87	135	145	96	236	154	124	97	70	60	69	70
28	87	128	138	110	227	173	125	96	68	50	73	70
29	104	83	146	120	230	165	121	117	66	45	75	71
30	132	115	143	120	---	159	115	195	66	45	76	77
31	114	---	133	125	---	169	---	169	---	42	75	---
TOTAL	3096	3187	3731	3939	5114	5454	4857	3882	2693	1806	2382	2251
MEAN	99.9	106	120	127	176	176	162	125	89.8	58.3	76.8	75.0
MAX	132	135	168	160	710	215	275	195	133	91	188	85
MIN	83	83	80	96	80	138	115	96	66	42	42	67
AC-FT	6140	6320	7400	7810	10140	10820	9630	7700	5340	3580	4720	4460

CAL YR 1979 TOTAL 42157 MEAN 115 MAX 614 MIN 58 AC-FT 83620
WTR YR 1980 TOTAL 42392 MEAN 116 MAX 710 MIN 42 AC-FT 84080

06459200 SNAKE RIVER ABOVE MERRITT RESERVOIR, NE

LOCATION.--Lat 42°36'12", long 101°04'14", in NW1/4SW1/4 sec.3, T.30 N., R.32 W., Cherry County, Hydrologic Unit 10150005, on left bank 0.2 mi (0.3 km) south of Nebraska National Forest boundary fence, 2.6 mi (4.2 km) upstream from Shelbourn Bridge, 7.1 mi (11.4 km) southeast of headquarters for Nebraska National Forest (Niobrara Division), 12.4 mi (20.0 km) upstream from Boardman Creek, and 16.9 mi (27.2 km) upstream from Merritt Dam.

DRAINAGE AREA.--440 mi^2 (1,140 km^2), approximately, of which about 28 mi^2 (73 km^2) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1962 to current year.

REVISED RECORDS.--WDR NE-72: Drainage area.

GAGE.--Water-stage recorder. Prior to Sept. 9, 1977, at site 2.4 mi (3.9 km) downstream at different datum.

REMARKS.--Records fair except those for flow above 250 ft^3/s (7.08 m^3/s) and those for winter period or no gage-height record, which are poor.

AVERAGE DISCHARGE.--18 years, 204 ft^3/s (5.777 m^3/s), 147,800 acre-ft/yr (0.182 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 637 ft^3/s (18.0 m^3/s) Aug. 12, 1966, gage height, 2.43 ft (0.741 m), site and datum then in use; maximum gage height, 8.63 feet, site and datum then in use, Mar. 14, 1977, ice jam; minimum daily discharge, 89 ft^3/s (2.52 m^3/s) Dec. 13, 1968.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood since October 1960, 820 ft^3/s (23.2 m^3/s) June 30, 1962, gage height, 2,953.46 ft (900.215 m) National Geodetic Vertical Datum of 1929, from high-water profiles at reference point on downstream side of Shelbourn Bridge 2.6 mi (4.2 km) downstream, result of slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 432 ft^3/s (12.2 m^3/s) Apr. 9 at 0215, gage height, 2.26 ft (0.689 m), no other peak above base of 350 ft^3/s (9.91 m^3/s); maximum gage height, about 4.8 ft (1.46 m) Dec. 17, questionable gage operation, backwater from ice; minimum daily discharge, 155 ft^3/s (4.39 m^3/s) Aug. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	193	215	205	180	205	210	225	186	187	176	180	161
2	187	210	210	180	200	215	198	183	183	179	180	160
3	192	205	215	175	200	215	192	181	185	195	200	162
4	205	215	220	175	200	220	278	188	186	215	185	165
5	208	210	220	180	200	210	336	188	189	211	175	164
6	208	205	225	175	195	215	325	189	192	198	185	168
7	215	205	220	175	200	215	296	183	201	189	175	163
8	215	200	215	180	195	220	340	173	194	180	175	164
9	202	190	220	185	190	215	366	172	191	175	185	166
10	195	195	220	185	195	220	372	184	187	185	180	170
11	222	195	205	180	200	210	342	185	181	175	195	180
12	225	200	200	190	190	210	316	211	186	170	236	175
13	215	190	200	200	195	205	292	201	187	165	170	170
14	222	198	195	210	200	205	228	203	184	170	159	175
15	215	205	190	222	195	210	210	197	222	175	179	179
16	228	210	175	215	190	195	200	198	223	180	223	172
17	239	205	185	215	185	220	195	192	255	175	170	170
18	232	210	190	215	200	209	198	188	202	185	159	187
19	215	205	185	215	205	211	198	183	189	175	155	187
20	205	200	180	215	220	208	198	180	190	170	180	182
21	195	195	180	220	222	208	189	184	194	185	167	180
22	200	190	175	215	212	201	192	180	195	210	162	188
23	200	195	180	215	208	203	186	174	175	208	157	187
24	182	200	180	220	213	200	182	173	175	195	161	194
25	182	210	185	210	227	189	176	185	175	200	170	183
26	180	210	185	205	215	173	182	182	178	205	171	195
27	187	205	197	205	225	186	192	177	178	215	163	195
28	179	195	180	200	220	211	189	179	179	210	164	193
29	208	200	185	205	215	161	186	193	178	200	163	197
30	215	205	180	210	---	198	184	230	184	195	160	193
31	220	---	175	200	---	250	---	199	---	185	162	---
TOTAL	6386	6073	6077	6172	5917	6418	7163	5821	5725	5851	5446	5325
MEAN	206	202	196	199	204	207	239	188	191	189	176	178
MAX	239	215	225	222	227	250	372	230	255	215	236	197
MIN	179	190	175	175	185	161	176	172	175	165	155	160
AC-FT	12670	12050	12050	12240	11740	12730	14210	11550	11360	11610	10800	10560

CAL YR 1979 TOTAL 72956 MEAN 200 MAX 284 MIN 145 AC-FT 144700
WTR YR 1980 TOTAL 72374 MEAN 198 MAX 372 MIN 155 AC-FT 143600

06459200 SNAKE RIVER ABOVE MERRITT RESERVOIR, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1963 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Water years 1963-75, October 1977 to current year.

INSTRUMENTATION.--Temperature recorder from Oct. 1, 1963.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 32.0°C July 18, 1974; minimum, 0.0°C on many days during winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	TEMPER-ATURE, WATER (DEG C) (00010)
OCT				
03...	1120	182	161	10.5
NOV				
14...	1100	189	152	3.5
DEC				
04...	1050	241	150	.5
JAN				
15...	0940	228	145	1.0
FEB				
05...	0945	212	153	.5
MAR				
17...	1600	190	161	9.5
APR				
08...	1010	311	160	7.0
MAY				
28...	1005	183	165	17.5
JUN				
11...	1005	168	162	18.0
AUG				
12...	1035	232	173	19.5
SEP				
03...	1055	174	167	18.5

06459200 SNAKE RIVER ABOVE MERRITT RESERVOIR, NE--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.0	12.0	5.5	1.0	1.0	.0	3.5	1.0	.5	.0		
2	16.0	11.0	6.5	3.0	1.0	1.0	3.5	2.0	.0	.0		
3	14.5	10.5	7.0	3.5	1.5	1.0	2.0	1.0	.0	.0		
4	14.0	8.5	7.0	4.5	2.0	.0	1.5	.5	.0	.0		
5	14.0	10.5	6.5	4.0	3.5	1.5	1.5	1.0	.5	.0		
6	15.0	10.5	6.0	2.0	3.0	1.5	1.5	.5	3.0	.5		
7	15.0	12.0	8.0	4.0	3.5	.5	1.0	.5	3.0	1.5		
8	15.0	11.5	6.5	3.5	3.0	.5	.5	.5	2.0	.5		
9	11.5	9.0	6.0	1.5	4.5	1.5	.5	.5	2.0	.5		
10	13.0	9.0	4.5	1.5	6.0	3.5	.5	.0	3.5	1.5		
11	15.0	11.0	5.0	3.0	4.5	.0	1.0	.5	1.5	.5		
12	14.5	10.5	6.0	3.5	.0	.0	1.0	.5	2.0	.5		
13	13.0	8.0	6.5	3.0	.0	.0	.5	.0	3.0	1.5		
14	14.0	8.5	6.5	3.5	1.0	.0	.5	.5	2.0	1.0		
15	15.5	11.0	8.0	4.0	1.0	.0	.5	.5	1.0	.5		
16	15.0	12.0	8.0	4.5	.0	.0	3.0	.5	1.5	1.0		
17	14.0	9.5	8.0	4.0	.0	.0	5.0	2.0	1.5	.5		
18	14.0	11.0	7.0	4.5	.0	.0	5.0	2.0	3.5	.5		
19	14.5	9.5	6.5	4.0	3.0	.0	2.0	1.0	8.5	3.5		
20	13.5	11.5	5.5	.5	4.0	1.0	1.5	.5	9.5	5.5		
21	11.5	8.0	.5	.0	4.0	2.0	1.5	.5	8.5	5.5		
22	10.0	6.0	.5	.0	4.0	2.0	1.0	.5	6.0	4.5		
23	11.5	6.5	.0	.0	3.5	2.0	4.0	1.0	7.0	3.5		
24	13.5	9.0	1.5	.0	3.0	.5	5.0	3.0	7.0	4.0		
25	13.0	9.0	4.0	1.5	4.5	2.0	4.5	1.0	5.5	1.0		
26	14.0	9.0	3.0	.5	4.5	2.0	1.0	1.0	3.0	3.0		
27	12.0	8.5	1.0	.0	4.0	3.0	1.5	1.0	---	---		
28	12.0	8.0	.5	.0	3.5	1.5	1.5	1.5	---	---		
29	11.0	5.5	.0	.0	3.5	2.0	1.5	1.0	---	---		
30	5.5	4.5	.0	.0	3.5	1.5	1.5	1.0	---	---		
31	4.5	3.5	---	---	3.0	.0	.5	.0	---	---		
MONTH	17.0	3.5	8.0	.0	6.0	.0	5.0	.0	9.5	.0		
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1			---	---	22.0	13.0	25.0	18.0	26.0	20.5	21.5	16.0
2			---	---	23.5	15.5	24.0	18.0	28.5	19.5	23.0	18.0
3			---	---	25.0	17.0	28.5	18.5	26.5	20.0	25.0	18.5
4			---	---	23.5	19.5	27.0	19.0	23.5	18.0	21.5	15.5
5			---	---	26.5	19.0	28.0	19.5	24.5	18.0	20.0	16.0
6			---	---	26.0	19.5	30.0	20.0	28.5	20.5	25.5	19.0
7			---	---	22.0	17.0	26.0	21.0	29.0	21.5	25.0	19.5
8			---	---	22.0	14.5	24.5	18.0	26.5	20.5	23.5	19.0
9			---	---	23.5	14.5	28.5	19.0	26.0	19.0	20.5	19.0
10			---	---	25.5	16.5	26.0	20.5	25.5	20.5	18.5	19.0
11			---	---	26.0	18.5	25.0	19.5	26.0	18.0	21.5	15.0
12			---	---	29.0	19.0	25.0	19.0	26.5	19.5	20.0	17.0
13			---	---	30.0	21.0	29.5	19.0	26.0	20.5	20.5	16.5
14			---	---	25.5	20.5	29.0	20.5	24.0	20.5	19.0	16.5
15			---	---	21.5	18.0	27.0	20.5	21.0	19.0	21.5	15.0
16			---	---	22.0	18.0	28.0	19.0	24.0	18.0	18.5	12.0
17			---	---	25.5	16.5	25.5	20.0	26.0	18.5	18.0	11.0
18			---	---	28.0	19.5	28.0	19.5	26.5	20.0	17.0	13.5
19			---	---	24.0	17.0	26.0	19.5	27.0	20.5	17.0	10.0
20			---	---	23.0	15.0	26.0	20.5	25.5	21.5	19.0	15.0
21			---	---	26.0	18.5	24.0	19.5	25.5	18.5	19.5	10.5
22			---	---	26.0	18.5	26.5	18.0	27.0	20.0	17.0	11.5
23			---	---	27.0	19.5	25.5	19.0	28.5	21.5	17.0	11.0
24			---	---	27.0	20.0	29.0	20.0	30.0	20.0	15.5	11.5
25			---	---	30.0	20.0	24.0	20.0	27.0	22.0	16.0	10.5
26			---	---	28.5	23.0	26.5	19.5	22.0	20.0	16.5	9.5
27			---	---	24.5	19.5	28.5	20.0	20.5	19.5	18.5	11.5
28			26.5	26.5	24.5	16.0	28.5	20.5	20.5	20.5	19.5	13.5
29			23.5	16.5	25.0	16.0	28.5	20.0	22.0	18.5	18.0	10.0
30			20.0	14.5	27.0	18.0	28.0	20.5	22.0	17.0	18.0	12.0
31			18.5	15.5	---	---	28.5	20.0	21.5	18.5	---	---
MONTH			26.5	14.5	30.0	13.0	30.0	18.0	30.0	16.0	25.5	9.5

06459300 MERRITT RESERVOIR NEAR BURGE, NE

LOCATION.--Lat 42°38'06", long 100°52'18", in SE1/4NW1/4 sec.29, T.31 N., R.30 W., Cherry County, Hydrologic Unit 10150005, in control house of outlet works of Merritt Dam, 8.1 mi (13.0 km) southwest of Burge and 23 mi (37 km) southwest of Valentine.

DRAINAGE AREA.--640 mi^2 (1,660 km^2), approximately, of which about 44 mi^2 (110 km^2) contributes directly to surface runoff.

PERIOD OF RECORD.--February 1964 to current year.

REVISED RECORDS.--WDR NE-67: Drainage area.

GAGE.--Direct reading, single vertical column, mercury-well type manometer read once daily. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by earthfill dam; storage began Feb. 19, 1964. Usable capacity, 72,872 acre-ft (89.9 hm^3) between elevations 2,875.0 ft (876.30 m), sill of canal outlet works, and 2,946.0 ft (897.94 m), crest of spillway. Dead and inactive storage, 1,614 acre-ft (1.99 hm^3) below elevation 2,875.0 ft (876.30 m). Figures given herein represent total contents. Water is used for irrigation of Ainsworth Unit of Water and Power Resources Service.

COOPERATION.--Records of elevations and capacity table furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 76,840 acre-ft (94.7 hm^3) May 4, 1971, May 28 to June 2, 1976, elevation 2,946.8 ft (898.18 m); minimum since appreciable storage was attained, 20,060 acre-ft (24.7 hm^3) Oct. 1, 1968, elevation, 2,916.1 ft (888.83 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 75,080 acre-ft (92.6 hm^3) May 18-23, May 31 to June 6, June 24, elevation, 2,946.2 ft (898.00 m); minimum observed, 33,710 acre-ft (41.6 hm^3) Aug. 26, elevation, 2,927.3 ft (892.24 m).

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	2,939.2	56,490	-
Oct. 31	2,942.6	65,060	+8,570
Nov. 30	2,942.5	64,800	-260
Dec. 31	2,942.5	64,800	0
CAL YR 1979	-	-	+6,620
Jan. 31	2,942.5	64,800	0
Feb. 29	2,943.0	66,120	+1,320
Mar. 31	2,944.1	69,110	+2,990
Apr. 30	2,946.0	74,490	+5,380
May 31	2,946.2	75,080	+590
June 30	2,945.8	73,910	-1,170
July 31	2,935.1	47,420	-26,490
Aug. 31	2,928.5	35,560	-11,860
Sept. 30	2,934.2	45,620	+10,060
WTR YR 1980	-	-	-10,870

06459500 SNAKE RIVER NEAR BURGE, NE

LOCATION.--Lat 42°39'15", long 100°51'28", in NE1/4 sec.20, T.31 N., R.30 W., Cherry County, Hydrologic Unit 10150005, on right bank 150 ft (46 m) downstream from Nebraska National Forest boundary, 2.1 mi (3.4 km) downstream from Merritt Dam, 6.5 mi (10.5 km) southwest of Burge, and 22 mi (35 km) southwest of Valentine.

DRAINAGE AREA.--660 mi² (1,710 km²), approximately, of which about 44 mi² (110 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--June 1947 to current year.

REVISED RECORDS.--WSP 1279: 1950(M), 1951(P). WDR NE-67,72: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,805.36 ft (855.074 m) National Geodetic Vertical Datum of 1929, (levels by Water and Power Resources Service, formerly Bureau of Reclamation).

REMARKS.--Records good. Natural flow affected by storage in Merritt Reservoir (station 06459300) 2.1 mi (3.4 km) upstream.

AVERAGE DISCHARGE.--17 years (1963-80), 150 ft³/s (4.248 m³/s), 108,700 acre-ft/yr (0.134 km³/yr), since storage and diversion began.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,170 ft³/s (89.8 m³/s) Feb. 7, 1963, gage height, 6.96 ft (2.121 m), release of storage behind temporary construction dike, from rating curve extended above 520 ft³/s (14.7 m³/s) on basis of slope-area measurement at gage height 5.39 ft (1.643 m); minimum daily, 5.8 ft³/s (0.16 m³/s) May 24-27, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 353 ft³/s (10.00 m³/s) Apr. 10, gage height, 2.36 ft (0.719 m); minimum daily, 13 ft³/s (0.37 m³/s) Oct. 1-4, Aug. 20 to Sept. 23, 25-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	208	214	211	226	235	97	200	180	29	25	13
2	13	208	214	211	226	235	97	202	179	29	26	13
3	13	207	214	211	226	235	97	202	181	29	26	13
4	13	206	213	211	226	240	97	188	174	29	26	13
5	19	224	240	225	228	251	95	96	177	29	26	13
6	27	274	261	234	229	251	95	89	186	27	26	13
7	27	258	263	228	226	251	97	102	183	27	26	13
8	27	290	260	223	226	254	98	103	178	27	26	13
9	27	277	260	223	226	254	100	108	171	27	29	13
10	27	208	261	223	227	255	252	95	145	27	29	13
11	27	208	264	223	226	254	348	97	152	27	20	13
12	27	208	263	223	226	255	346	100	142	27	14	13
13	27	208	251	223	226	254	343	126	128	26	14	13
14	27	208	238	223	223	254	325	174	114	26	14	13
15	27	208	238	222	223	256	258	141	130	26	15	13
16	27	180	238	223	223	257	226	147	148	26	14	13
17	27	211	220	223	224	254	206	155	167	26	14	13
18	27	211	208	223	223	236	200	180	176	26	14	13
19	27	233	208	223	224	205	198	203	208	26	14	13
20	27	250	224	223	226	202	205	226	225	25	13	13
21	28	267	235	223	224	202	206	221	221	25	13	13
22	161	253	235	223	226	202	205	223	215	25	13	13
23	244	208	235	223	226	202	202	159	213	25	13	13
24	241	225	242	223	226	142	199	131	156	25	13	14
25	238	238	247	225	223	99	196	129	102	25	13	13
26	219	253	247	226	223	99	199	124	60	25	13	13
27	208	264	247	226	229	100	196	124	35	25	13	13
28	208	249	247	226	235	99	185	105	28	25	13	13
29	209	215	247	226	235	97	199	118	27	25	13	13
30	209	214	249	226	---	95	199	166	29	25	13	13
31	208	---	227	226	---	95	---	176	---	25	13	---
TOTAL	2649	6871	7410	6902	6557	6320	5766	4610	4430	816	554	391
MEAN	85.5	229	239	223	226	204	192	149	148	26.3	17.9	13.0
MAX	244	290	264	234	235	257	348	226	225	29	29	14
MIN	13	180	208	211	223	95	95	89	27	25	13	13
AC-FT	5250	13630	14700	13690	13010	12540	11440	9140	8790	1620	1100	776

CAL YR 1979 TOTAL 52249 MEAN 143 MAX 320 MIN 12 AC-FT 103600
WTR YR 1980 TOTAL 53276 MEAN 146 MAX 348 MIN 13 AC-FT 105700

06461000 MINNECHADUZA CREEK AT VALENTINE, NE

LOCATION.--Lat 42°53'10", long 100°33'10", in SW1/4 sec.30, T.34 N., R.27 W., Cherry County, Hydrologic Unit 10150004, on right bank 500 ft (152 m) downstream from powerplant in city park at north edge of Valentine and 4 mi (6 km) upstream from mouth.

DRAINAGE AREA.--390 mi² (1,010 km²), approximately, of which about 200 mi² (520 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--December 1947 to current year.

REVISED RECORDS.--WDR NE-67: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 2,470 ft (753 m), from topographic map.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by powerplant 500 ft (152 m) above station.

AVERAGE DISCHARGE.--32 years (1948-80), 33.8 ft³/s (0.957 m³/s), 24,490 acre-ft/yr (30.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,100 ft³/s (31.2 m³/s) Mar. 22, 1960, gage height, 8.00 ft (2.438 m); minimum daily, 2.6 ft³/s (0.074 m³/s) Feb. 22, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 148 ft³/s (4.19 m³/s) Mar. 3, gage height, 2.53 ft (0.771 m); minimum daily, 3.7 ft³/s (0.10 m³/s) Jan. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	36	35	27	28	23	67	39	27	14	4.6	21
2	18	38	28	30	20	30	64	33	31	15	7.5	15
3	20	40	31	15	31	71	53	37	31	16	4.8	27
4	17	38	38	28	32	47	70	33	27	18	7.9	8.0
5	15	39	40	26	30	24	88	35	18	13	7.2	7.1
6	21	39	39	30	31	36	88	35	29	12	7.8	18
7	18	37	45	3.7	31	61	97	24	22	16	4.8	18
8	18	35	42	14	34	44	107	36	21	17	7.8	11
9	17	34	32	30	32	52	99	30	20	13	14	8.9
10	21	46	40	22	23	42	93	31	26	13	15	11
11	23	23	40	22	34	46	96	33	22	16	28	19
12	17	28	23	25	16	54	84	26	20	14	22	7.4
13	19.	28	26	21	33	45	73	35	20	9.6	14	22
14	49	31	40	25	32	57	67	36	27	9.4	16	13
15	19	34	35	37	22	63	57	33	26	13	20	6.3
16	4.5	34	27	39	22	56	49	31	31	17	35	13
17	11	30	6.1	34	19	50	60	49	33	12	41	8.7
18	26	27	31	29	34	63	61	34	34	11	36	16
19	22	31	36	28	35	64	41	22	37	11	17	12
20	19	31	38	25	36	64	40	39	45	13	21	13
21	28	27	37	31	44	66	51	38	49	6.2	29	18
22	22	15	32	29	40	46	43	28	59	11	28	18
23	30	27	28	29	44	67	48	24	33	14	23	11
24	21	34	28	31	35	44	40	28	39	9.6	17	11
25	26	45	33	34	40	40	39	30	33	14	20	14
26	26	37	32	26	42	53	41	25	27	4.8	20	16
27	25	24	34	7.8	38	41	35	24	21	14	18	11
28	26	25	33	28	46	65	35	18	21	10	24	15
29	19	9.0	26	28	42	43	34	19	27	9.4	14	14
30	41	26	26	21	---	57	39	64	14	8.2	17	15
31	52	---	30	23	---	39	---	33	---	7.2	16	---
TOTAL	705.5	948.0	1011.1	798.5	946	1553	1859	1002	870	381.4	557.4	418.4
MEAN	22.8	31.6	32.6	25.8	32.6	50.1	62.0	32.3	29.0	12.3	18.0	13.9
MAX	52	46	45	39	46	71	107	64	59	18	41	27
MIN	4.5	9.0	6.1	3.7	16	23	34	18	14	4.8	4.6	6.3
AC-FT	1400	1880	2010	1580	1880	3080	3690	1990	1730	757	1110	830

CAL YR 1979 TOTAL 12507.6 MEAN 34.3 MAX 156 MIN 4.5 AC-FT 24810
WTR YR 1980 TOTAL 11050.3 MEAN 30.2 MAX 107 MIN 3.7 AC-FT 21920

06461500 NIOBRARA RIVER NEAR SPARKS, NE

LOCATION.--Lat 42°54'10", long 100°21'40", in SE1/4 sec.22, T.34 N., R.26 W., Cherry County, Hydrologic Unit 10150004, on left bank 18 ft (5 m) downstream from highway bridge, 2.2 mi (3.5 km) downstream from Big Beaver Creek, 5.5 mi (8.8 km) downstream from Minnechaduza Creek, and 6.5 mi (10.5 km) southwest of Sparks.

DRAINAGE AREA.--8,090 mi² (21,000 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1945 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1209: 1947(M), 1948-50(P). WDR NE-67: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,287.57 ft (697.251 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period and periods of indefinite stage-discharge relation, which are poor. Natural flow of stream affected by irrigation and power developments, storage in Box Butte Reservoir (station 06455000), and since May 1964 by storage in Merritt Reservoir (station 06459300).

AVERAGE DISCHARGE.--35 years, 776 ft³/s (21.98 m³/s), 562,200 acre-ft/yr (0.693 km³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,200 ft³/s (289 m³/s) Mar. 5, 1949, gage height, 6.73 ft (2.051 m), from rating curve extended above 3,800 ft³/s (108 m³/s); maximum gage height recorded, 10.06 ft (3.066 m) Feb. 7, 1973, ice jam; minimum daily discharge, 100 ft³/s (2.83 m³/s) Jan. 10, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,090 ft³/s (59.2 m³/s) Mar. 19, gage height, 4.06 ft (1.237 m), from sluicing at dam above station; maximum gage height, 4.10 ft (1.250 m) June 16, from sluicing at dam above station, shifting control adjustment; minimum daily discharge, 317 ft³/s (8.98 m³/s) Aug. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	400	817	818	780	760	800	874	824	709	400	371	410
2	425	773	876	782	940	840	914	803	684	410	371	400
3	414	780	891	750	900	940	967	804	663	457	350	390
4	405	764	932	740	1000	1000	972	788	676	442	325	400
5	388	769	897	700	960	1020	950	764	660	395	325	390
6	422	805	952	640	940	988	966	664	673	410	317	370
7	431	862	926	400	880	1010	1010	657	664	388	345	380
8	438	824	914	500	840	1010	1070	671	670	402	369	380
9	453	867	905	660	780	989	1030	684	678	418	449	390
10	457	799	933	800	820	1000	993	694	673	426	445	410
11	456	765	888	900	780	992	1220	667	631	442	494	410
12	475	778	852	1000	740	995	1220	694	634	450	454	420
13	489	782	897	1160	760	983	1190	779	668	442	420	420
14	490	779	874	1080	800	985	1160	773	779	402	460	440
15	505	785	851	1040	740	973	1120	748	707	395	580	440
16	492	785	784	940	700	966	994	737	810	380	540	450
17	489	763	670	980	680	942	987	736	842	373	450	450
18	523	796	715	920	800	970	932	725	709	373	400	430
19	522	785	866	840	960	919	890	721	693	395	420	440
20	511	864	846	860	1100	913	877	719	719	388	460	450
21	579	881	872	900	1250	906	865	720	732	402	440	483
22	616	830	865	860	1340	908	860	691	778	396	420	471
23	743	769	842	920	1470	884	867	667	725	417	450	450
24	757	746	818	940	1520	879	851	629	697	367	400	430
25	764	874	833	820	1500	793	837	657	618	360	410	440
26	754	875	841	660	1290	794	828	582	580	378	410	450
27	736	886	842	620	1190	799	817	580	560	405	400	440
28	725	838	831	600	1210	894	803	564	540	402	410	440
29	768	750	827	560	1110	933	798	620	520	375	420	450
30	929	696	831	500	---	872	808	778	520	377	410	460
31	911	---	808	560	---	856	---	667	---	360	420	---
TOTAL	17467	24087	26497	24412	28760	28753	28670	21807	20212	12427	12935	12784
MEAN	563	803	855	787	992	928	956	703	674	401	417	426
MAX	929	886	952	1160	1520	1020	1220	824	842	457	580	483
MIN	388	696	670	400	680	793	798	564	520	360	317	370
AC-FT	34650	47780	52560	48420	57050	57030	56870	43250	40090	24650	25660	25360

CAL YR 1979 TOTAL 254962 MEAN 699 MAX 1140 MIN 388 AC-FT 505700
WTR YR 1980 TOTAL 258811 MEAN 707 MAX 1520 MIN 317 AC-FT 513400

06461500 NIOBRARA RIVER NEAR SPARKS, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976-80.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	TEMPER-ATURE, WATER (DEG C) (00010)
OCT				
02...	1650	449	226	17.0
NOV				
13...	1650	818	213	5.5
DEC				
05...	0855	857	209	2.0
JAN				
14...	1540	1070	212	.5
FEB				
06...	0855	866	199	.5
MAR				
18...	1600	991	231	9.0
APR				
07...	1510	963	252	13.0
MAY				
27...	1625	609	219	22.0
JUN				
10...	1600	690	220	24.5
JUL				
03...	0900	446	208	21.0
AUG				
11...	1710	536	208	24.5
SEP				
02...	1440	408	214	23.0

06462000 NIOBRARA RIVER NEAR NORDEN, NE

LOCATION.--Lat 42°47'13", long 100°02'06", in N1/2SW1/4 sec.33, T.33 N., R.23 W., Keya Paha County, Hydrologic Unit 10150004, on left bank 60 ft (18 m) downstream from county road bridge, 1.5 mi (2.4 km) downstream from Fairfield Creek, and 6 mi (10 km) south of Norden.

DRAINAGE AREA.--8,390 mi² (21,700 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1952 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,108.93 ft (642.802 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 5, 1979, at datum 1.0 ft (0.30 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Flow affected by regulation at powerplants, diversions for irrigation, return flow from irrigated areas, storage in Box Butte Reservoir (station 06455000), and since May 1964 storage in Merritt Reservoir (station 06459300).

AVERAGE DISCHARGE.--28 years, 862 ft³/s (24.41 m³/s), 624,500 acre-ft/yr (0.770 km³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,380 ft³/s (209 m³/s) July 1, 1962, gage height, 8.10 ft (2.469 m) present datum, backwater from bridge in channel; maximum gage height, 11.24 ft (3.426 m) present datum, Mar. 11, 1966, ice jam and backwater from bridge in channel; minimum daily discharge, 130 ft³/s (3.68 m³/s) Jan. 10, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,900 ft³/s (53.8 m³/s) Feb. 24, gage height, 3.19 ft (0.972 m); maximum gage height, 4.85 ft (1.478 m) Jan. 11, backwater from ice; minimum daily discharge, 365 ft³/s (10.3 m³/s) Aug. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	555	1050	930	885	940	860	985	883	838	432	403	466
2	547	959	971	885	1160	940	1070	886	820	432	397	465
3	549	934	974	847	1100	1040	1170	876	793	505	395	444
4	571	926	1030	819	1250	1080	1160	864	769	457	384	453
5	579	942	1060	803	1200	980	1150	856	756	446	380	431
6	575	937	1120	760	1160	976	1170	759	753	472	369	418
7	603	974	1130	540	1100	1050	1200	736	816	453	365	431
8	631	942	1080	580	1040	1070	1260	755	760	492	371	430
9	642	995	1120	800	940	1080	1210	747	759	480	449	439
10	640	970	1100	940	960	1080	1150	752	729	484	505	458
11	636	900	1040	1060	940	1080	1320	770	668	464	600	461
12	629	922	998	1160	880	1080	1350	811	659	505	562	474
13	656	932	1010	1250	900	1070	1320	895	669	505	500	480
14	664	955	1040	1200	940	1060	1280	905	670	496	573	499
15	705	940	1010	1160	860	1090	1210	879	839	496	702	493
16	631	942	960	1060	820	1110	1120	867	795	476	702	500
17	642	901	820	1080	780	1100	1110	899	968	453	551	514
18	667	947	840	1000	880	1100	1020	882	784	446	476	490
19	692	969	980	960	1040	1090	1010	851	828	439	492	511
20	679	1010	960	1000	1200	1060	982	847	840	446	551	523
21	730	1050	980	1040	1350	1040	966	863	840	457	536	555
22	807	1000	980	980	1430	1040	949	842	922	472	509	553
23	867	977	960	1020	1360	1010	955	827	878	484	450	534
24	908	939	949	1060	1680	1020	949	732	818	500	439	521
25	906	992	944	940	1620	929	936	705	742	476	464	536
26	898	1020	933	720	1510	881	942	707	678	481	457	528
27	889	1030	939	680	1360	910	935	697	629	515	446	512
28	887	975	955	660	1240	1000	909	689	589	452	467	507
29	908	951	928	620	1200	1080	874	692	578	444	475	520
30	1090	841	912	580	---	962	868	980	600	424	461	527
31	1140	---	906	740	---	956	---	849	---	410	474	---
TOTAL	22523	28822	30559	27829	32840	31824	32530	25303	22787	14494	14905	14673
MEAN	727	961	986	858	1132	1027	1084	816	760	468	481	489
MAX	1140	1050	1130	1250	1680	1110	1350	980	968	515	702	555
MIN	547	841	820	540	780	860	868	689	576	410	365	418
AC-FT	44670	57170	60610	55200	65140	63120	64520	50190	45200	28750	29560	29100

CAL YR 1979 TOTAL 303014 MEAN 830 MAX 1300 MIN 480 AC-FT 601000
WTR YR 1980 TOTAL 299089 MEAN 817 MAX 1680 MIN 365 AC-FT 593200

06462000 NIOBRARA RIVER NEAR NORDEN, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963-66, 1974 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: August 1974 to current year.
WATER TEMPERATURES: August 1974 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 489 micromhos June 29, 1976; minimum daily, 130 micromhos Mar. 6, 1980.
WATER TEMPERATURES: Maximum, 30.0°C July 17, 1978; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 299 micromhos Dec. 13; minimum daily, 130 micromhos Mar. 6.
WATER TEMPERATURES: Maximum, 23.5°C July 29; minimum, 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	COLOR (PLAT-INUM COBALT UNITS) (00080)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
OCT									
04...	1130	574	233	8.0	12.5	5	100	0	33
NOV									
13...	1120	916	218	7.6	4.0	10	86	0	28
DEC									
28...	1105	954	216	7.6	.5	10	94	0	30
FEB									
06...	1100	1180	201	7.4	.5	10	82	0	27
MAR									
17...	1220	1080	216	7.6	8.0	15	92	0	30
APR									
30...	1110	882	227	8.0	17.5	5	92	0	30
MAY									
27...	1110	714	246	8.3	20.0	10	95	0	31
JUN									
10...	1055	742	230	8.0	23.5	10	92	0	30
JUL									
03...	1050	511	229	8.2	26.5	0	94	0	31
AUG									
11...	1100	727	215	7.9	23.0	10	86	0	28
SEP									
24...	1000	548	224	7.9	14.5	4	93	0	31

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
OCT									
04...	4.3	9.1	.4	6.2	110	8.5	1.3	.3	--
NOV									
13...	3.9	8.1	.4	5.8	98	9.0	1.4	.3	47
DEC									
28...	4.7	8.9	.4	6.0	100	11	1.7	.3	56
FEB									
06...	3.6	8.9	.4	5.7	98	7.5	1.3	.3	48
MAR									
17...	4.1	9.5	.4	6.0	94	8.6	2.0	.3	49
APR									
30...	4.1	9.9	.5	7.0	110	8.3	1.8	.4	50
MAY									
27...	4.3	9.7	.4	7.0	110	7.2	1.6	.4	52
JUN									
10...	4.1	9.4	.4	6.9	110	5.4	1.5	.3	52
JUL									
03...	4.1	9.6	.4	7.3	110	6.1	.9	.2	59
AUG									
11...	3.8	8.7	.4	6.7	93	9.9	1.5	.5	54
SEP									
24...	3.9	9.1	.4	6.0	110	4.4	1.6	.4	55

06462000 NIOBRARA RIVER NEAR NORDEN, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
OCT 04...	--	--	--	.21	.090	.050	20	20	3
NOV 13...	165	.22	408	.49	.160	.080	40	40	6
DEC 28...	182	.25	469	.73	.170	.090	20	30	0
FEB 06...	164	.22	523	.62	.110	.100	20	30	1
MAR 17...	168	.23	490	.42	--	.170	30	20	6
APR 30...	178	.24	424	.08	--	.050	30	20	3
MAY 27...	180	.24	347	.06	--	.050	30	20	<3
JUN 10...	176	.24	353	.08	--	.060	30	20	<3
JUL 03...	184	.25	254	.00	--	.010	60	20	<3
AUG 11...	169	.23	332	.04	--	.040	60	30	2
SEP 24...	179	.24	265	.24	--	.080	50	<10	<1

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	225	220	222	212	245	144	157	222	233	232	234	229
2	227	205	218	161	179	188	137	230	242	237	236	232
3	222	203	268	214	211	152	158	234	241	214	226	228
4	233	212	220	173	221	192	142	210	233	232	206	235
5	220	207	228	175	201	155	154	227	155	237	238	228
6	208	225	211	218	201	130	140	198	157	239	202	232
7	214	211	232	229	199	149	183	130	235	235	211	232
8	213	208	218	203	209	163	138	135	241	179	226	238
9	226	214	216	280	179	207	182	184	172	232	222	228
10	223	194	218	214	181	139	179	226	231	237	229	231
11	223	201	228	239	210	138	176	231	237	233	232	228
12	223	213	223	203	211	132	174	222	229	219	162	225
13	212	218	299	189	222	146	174	180	239	171	236	226
14	209	214	212	214	200	143	173	228	221	241	229	234
15	226	210	218	155	209	178	186	233	241	218	205	233
16	224	209	218	210	229	202	199	202	227	203	175	233
17	215	199	240	183	192	200	183	240	208	211	233	228
18	214	210	219	159	230	159	236	231	189	212	219	228
19	216	211	194	174	231	239	215	230	223	174	208	226
20	228	212	214	223	211	152	235	230	219	199	225	229
21	227	209	226	218	208	229	235	222	235	231	239	220
22	214	209	219	211	211	227	238	239	222	233	229	234
23	212	219	220	209	214	221	239	242	221	203	222	227
24	215	220	228	211	214	247	235	229	222	202	225	231
25	210	209	222	213	221	205	150	231	225	202	222	218
26	210	228	218	241	226	247	232	231	244	219	222	231
27	218	208	224	248	241	209	225	228	235	232	225	227
28	220	209	222	251	232	225	201	190	192	207	229	293
29	215	213	218	259	225	223	218	195	221	229	233	233
30	235	211	230	245	---	198	217	230	239	235	234	233
31	243	---	230	248	---	222	---	225	---	237	231	---

06462000 NIOBRARA RIVER NEAR NORDEN, NE--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.0	2.0	1.0	.0	.0	2.0	11.0	18.0	14.0	23.5	22.0	17.0
2	11.0	2.0	1.0	.0	2.0	2.5	12.0	18.0	15.0	22.0	20.0	16.0
3	11.0	2.0	.0	.5	2.0	3.0	10.0	18.0	13.0	22.0	21.0	15.0
4	11.0	1.0	.0	2.0	2.0	2.0	12.0	17.0	16.0	20.0	17.0	9.0
5	12.0	2.0	.0	1.0	3.0	2.0	9.0	16.0	17.0	23.0	20.0	16.0
6	11.0	2.0	.0	.0	2.0	2.0	7.0	20.0	19.0	20.0	20.0	12.0
7	12.0	1.0	.0	1.0	3.0	3.0	14.0	11.0	20.0	22.0	22.0	19.0
8	12.0	3.0	.0	.0	2.0	3.5	7.0	8.0	21.0	20.0	19.0	14.0
9	12.0	2.0	.0	.0	2.0	3.0	6.0	9.0	18.0	21.0	21.0	15.0
10	13.0	1.0	.5	2.0	2.0	2.0	7.0	11.0	17.0	22.0	19.0	9.0
11	10.0	2.0	.0	1.5	.5	3.0	9.0	11.0	18.0	19.0	18.0	11.0
12	9.0	2.0	.0	3.0	2.0	3.0	8.0	12.0	18.5	22.0	18.0	16.0
13	9.0	3.0	.0	3.0	2.0	3.0	9.0	11.0	19.0	19.0	20.0	17.0
14	8.0	3.0	.0	3.0	2.0	3.5	15.0	16.0	20.0	16.0	18.0	14.0
15	7.0	2.0	.0	2.0	1.0	3.0	14.0	9.0	20.0	14.0	19.0	15.0
16	5.0	2.0	.0	2.0	1.0	2.0	13.0	9.0	21.0	13.0	16.0	14.0
17	5.0	1.0	.0	2.0	2.5	3.0	14.0	10.0	21.5	23.0	20.0	11.0
18	4.0	2.0	.0	1.0	2.0	5.0	13.0	10.0	19.0	23.0	20.0	12.0
19	4.0	3.0	1.0	.5	2.0	8.0	10.0	11.0	17.0	21.0	18.0	7.0
20	4.0	2.0	.0	.0	1.0	10.0	16.0	16.0	18.5	19.0	18.0	8.0
21	4.0	2.0	.0	2.0	3.0	11.0	17.0	16.0	19.5	20.0	21.0	10.0
22	2.0	1.0	.0	2.0	2.0	10.0	18.0	15.0	21.0	20.0	20.0	12.0
23	1.0	1.0	.0	3.0	2.0	8.0	18.0	16.0	21.0	20.0	18.0	10.0
24	3.0	1.0	.0	2.0	3.5	10.0	16.0	17.0	22.0	21.0	17.0	10.0
25	3.0	1.0	.0	2.0	3.0	11.0	16.0	17.0	22.0	19.0	19.0	8.0
26	7.0	1.0	1.0	.0	3.5	8.0	11.0	18.0	19.0	22.5	20.0	5.0
27	6.0	1.0	.0	.0	3.0	7.0	17.0	16.0	20.0	23.0	18.0	12.0
28	5.0	1.0	.0	.0	2.0	7.0	16.0	16.0	21.0	20.0	18.0	12.0
29	5.0	.0	.0	.0	1.0	7.0	10.0	12.0	20.5	23.5	19.0	10.0
30	5.0	.0	.0	.0	---	6.0	18.0	11.0	20.0	22.5	19.0	5.0
31	3.0	---	.0	.0	---	6.0	---	14.0	---	22.0	18.0	---

NIOBRARA RIVER BASIN

06462500 PLUM CREEK AT MEADVILLE, NE

LOCATION.--Lat 42°45'05", long 99°52'05", in NE1/4NW1/4 sec.14, T.32 N., R.22 W., Brown County, Hydrologic Unit 10150004, on left bank 0.4 mi (0.6 km) upstream from county road bridge, 1 mi (2 km) upstream from mouth, 1 mi (2 km) southwest of Meadville, and 17 mi (27 km) north of Ainsworth.

DRAINAGE AREA.--600 mi² (1,550 km²), approximately, of which about 340 mi² (880 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1947 to September 1975, October 1976 to current year. Prior to October 1962, published as "near Meadville."

REVISED RECORDS.--WSP 1729: 1953. WSP 1917: 1953.

GAGE.--Water-stage recorder. Altitude of gage is 2,033 ft (619.7 m), from topographic map. Prior to Nov. 25, 1962, at site 6.5 mi (10.5 km) upstream at different datum. Nov. 25, 1962, to Nov. 14, 1966, at present site at datum 2.0 ft (0.61 m) higher. Nov. 15, 1966 to Oct. 2, 1979 at present site at datum 1.0 ft (0.30 m) higher.

REMARKS.--Records fair except those for winter period, which are poor.

AVERAGE DISCHARGE.--31 years (1948-75, 1976-80), 108 ft³/s (3.059 m³/s), 78,250 acre-ft/yr (96.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,070 ft³/s (58.6 m³/s) Sept. 18, 1967, gage height, 5.98 ft (1.823 m) present datum; maximum gage height observed, 8.54 ft (2.603 m) Dec. 6, 1964, backwater from ice, present datum; minimum daily discharge, 15 ft³/s (0.42 m³/s) Feb. 19, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 336 ft³/s (9.52 m³/s) Apr. 6 at 1130, gage height, 2.58 ft (0.786 m), no other peak above base of 300 ft³/s (8.50 m³/s); minimum daily, 58 ft³/s (1.64 m³/s) Aug. 7, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	89	124	106	101	96	104	151	107	113	85	59	80
2	89	113	108	100	102	111	164	104	104	82	61	78
3	93	109	102	98	106	120	190	103	101	89	72	81
4	91	109	100	100	114	121	216	95	98	89	67	80
5	95	116	109	98	110	113	265	92	94	108	61	75
6	88	109	119	98	105	106	325	95	95	96	63	77
7	89	108	118	96	102	107	323	93	92	81	58	79
8	92	66	116	90	102	104	299	95	93	78	58	83
9	95	80	112	84	90	104	276	92	93	75	63	79
10	95	110	115	90	94	104	232	89	92	77	75	80
11	94	106	115	88	91	108	195	87	92	66	72	83
12	95	104	106	96	88	110	154	91	100	62	81	84
13	95	106	110	110	89	113	130	96	93	62	94	76
14	95	105	110	130	86	114	117	98	94	63	90	78
15	92	102	106	114	89	119	112	98	96	64	82	81
16	92	103	92	105	88	127	104	95	100	66	96	75
17	91	103	98	103	84	129	107	92	98	65	112	85
18	94	101	102	102	90	126	104	95	107	70	105	83
19	94	98	102	99	96	126	107	97	105	66	100	85
20	97	108	104	97	102	122	107	99	96	64	98	84
21	103	110	103	98	115	122	109	103	98	68	115	87
22	109	110	103	97	112	125	107	97	98	72	114	80
23	102	104	102	96	115	133	102	100	97	72	103	83
24	97	112	103	100	112	135	99	99	94	70	105	83
25	95	118	102	99	115	141	99	101	90	72	95	83
26	95	118	101	96	115	141	96	97	91	74	113	83
27	93	111	102	96	120	141	102	94	87	77	133	83
28	95	106	103	92	114	146	106	96	88	70	131	83
29	102	102	103	88	110	148	108	101	86	65	104	86
30	127	104	103	86	---	141	106	117	82	61	95	85
31	144	---	102	80	---	143	---	124	---	60	87	---
TOTAL	3017	3175	3277	3027	2952	3804	4712	3042	2867	2269	2762	2442
MEAN	97.3	106	106	97.6	102	123	157	98.1	95.6	73.2	89.1	81.4
MAX	144	124	119	130	120	148	325	124	113	108	133	87
MIN	88	66	92	80	84	104	96	87	82	60	58	75
AC-FT	5980	6300	6500	6000	5860	7550	9350	6030	5690	4500	5480	4840

CAL YR 1979 TOTAL 37660 MEAN 103 MAX 219 MIN 61 AC-FT 74700
WTR YR 1980 TOTAL 37346 MEAN 102 MAX 325 MIN 58 AC-FT 74080

06462500 PLUM CREEK AT MEADVILLE, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1977 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	COLOR (PLAT-INUM COBALT UNITS) (00080)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
OCT 25...	1000	99	176	7.6	7.5	25	70	0	23
NOV 15...	1105	101	183	7.6	6.5	10	75	0	25
DEC 05...	1140	109	182	7.6	4.5	0	73	0	24
JAN 16...	1320	108	175	7.7	4.0	5	74	0	25
FEB 27...	1010	119	181	7.7	5.5	10	79	0	26
MAR 19...	1450	130	192	7.7	12.0	20	81	0	27
APR 09...	1005	278	303	7.9	9.5	50	130	0	40
MAY 29...	1350	100	187	8.0	23.5	20	76	0	25
JUN 12...	1420	104	182	8.1	27.5	5	73	0	24
JUL 24...	1100	72	184	8.0	24.5	5	78	0	26
AUG 13...	1430	101	178	8.2	25.0	10	70	0	23
SEP 04...	1105	86	189	7.2	18.5	0	75	0	25

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
OCT 25...	3.0	6.4	.3	6.2	83	7.4	1.5	.3	55
NOV 15...	3.0	7.2	.4	5.3	87	3.8	1.1	.4	58
DEC 05...	3.1	6.8	.3	5.0	88	1.1	1.2	.3	56
JAN 16...	2.7	6.6	.3	5.5	84	9.6	1.2	.3	57
FEB 27...	3.3	7.4	.4	5.7	85	3.5	1.5	.4	55
MAR 19...	3.3	8.0	.4	5.7	90	1.9	1.4	.3	52
APR 09...	6.5	16	.6	10	160	3.3	2.8	.7	44
MAY 29...	3.3	6.5	.3	5.9	83	5.1	2.3	.4	57
JUN 12...	3.1	7.5	.4	5.5	83	3.5	1.1	.3	56
JUL 24...	3.2	6.7	.3	5.5	89	1.9	.8	.3	59
AUG 13...	3.0	6.4	.3	6.1	82	4.0	1.2	.4	55
SEP 04...	3.1	6.8	.3	5.8	82	9.7	1.0	.4	59

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
OCT									
25...	156	.21	41.7	.77	--	.110	20	10	3
NOV									
15...	160	.22	43.6	.86	.260	.110	10	20	2
DEC									
05...	155	.21	45.6	.93	.220	.110	20	20	4
JAN									
16...	163	.22	47.5	.99	.120	.120	10	10	2
FEB									
27...	158	.21	50.8	.89	.180	.130	20	40	3
MAR									
19...	157	.21	55.1	.69	--	.220	30	20	2
APR									
09...	221	.30	166	.28	--	.110	70	50	2
MAY									
29...	158	.21	42.7	.56	--	.110	70	20	<3
JUN									
12...	153	.21	43.0	.57	.150	.100	10	20	2
JUL									
24...	159	.22	30.9	.39	.100	.070	50	10	<3
AUG									
13...	151	.21	41.2	.49	--	.150	130	20	1
SEP									
04...	161	.22	37.4	.21	.100	.080	60	20	1

06463080 LONG PINE CREEK NEAR LONG PINE, NE

LOCATION.--Lat 42°37'55", long 99°40'46", in SE1/4NE1/4 sec.29, T.31 N., R.20 W., Brown County, Hydrologic Unit 10150004, on right bank 4.9 mi (7.9 km) upstream from Bone Creek and 7 mi (11 km) north of Long Pine.

PERIOD OF RECORD.--October 1979 to September 1980.

GAGE.--Water-stage recorder. Altitude of gage is 2,080 ft (634 m), from topographic map.

REMARKS.--Records good except those above 120 ft^3/s (3.40 m^3/s), which are poor. Minor diversions for irrigation above station.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 420 ft^3/s (11.9 m^3/s) June 14, gage height, 3.95 ft (1.204 m); minimum daily, 77 ft^3/s (2.18 m^3/s) Sept. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	89	106	92	94	90	89	104	90	106	87	81	81
2	88	99	91	93	91	91	113	92	109	82	82	82
3	95	97	93	91	92	95	136	90	104	80	84	80
4	96	96	95	92	93	95	159	92	101	81	84	78
5	95	97	98	92	92	92	175	90	100	86	84	77
6	95	93	105	91	93	92	142	92	100	86	84	80
7	94	94	106	90	94	92	117	92	100	84	83	78
8	94	94	100	89	93	92	103	94	100	82	83	79
9	93	91	99	90	93	95	97	96	100	91	83	79
10	94	90	104	91	93	96	93	98	99	84	89	81
11	94	90	101	90	93	93	92	96	98	80	97	85
12	92	90	95	91	91	94	90	98	92	78	94	82
13	92	91	95	91	91	93	90	104	89	80	91	83
14	93	91	95	93	91	96	98	102	104	81	93	85
15	92	91	95	95	91	98	100	100	134	83	93	87
16	92	90	93	92	91	97	100	92	106	81	100	87
17	92	91	93	92	92	94	102	94	101	81	94	88
18	94	91	93	93	93	95	104	96	97	81	93	88
19	94	91	93	92	100	95	108	98	95	83	90	89
20	92	92	93	92	109	95	106	100	94	84	85	89
21	93	95	94	92	103	98	106	102	93	83	84	90
22	93	91	93	93	97	96	108	102	96	84	85	89
23	92	92	93	93	96	95	98	94	89	84	84	88
24	91	92	92	95	98	95	94	96	86	83	84	90
25	90	96	92	93	96	94	88	98	88	84	84	90
26	90	97	92	89	96	96	88	94	91	85	102	90
27	91	96	92	88	99	95	90	96	86	87	89	91
28	91	93	92	88	97	101	91	96	83	85	86	92
29	94	92	92	88	89	97	90	99	89	82	84	92
30	102	92	93	89	---	97	90	116	96	80	79	92
31	111	---	93	89	---	99	---	112	---	81	79	---
TOTAL	2898	2801	2947	2831	2737	2942	3172	3011	2926	2573	2707	2562
MEAN	93.5	93.4	95.1	91.3	94.4	94.9	106	97.1	97.5	83.0	87.3	85.4
MAX	111	106	106	95	109	101	175	116	134	91	102	92
MIN	88	90	91	88	89	89	88	90	83	78	79	77
AC-FT	5750	5560	5850	5620	5430	5840	6290	5970	5800	5100	5370	5080

WTR YR 1980 TOTAL 34107 MEAN 93.2 MAX 175 MIN 77 AC-FT 67650

06463500 LONG PINE CREEK NEAR RIVERVIEW, NE

LOCATION (REVISED).--Lat 42°41'21", long 99°43'43", in SE1/4NE1/4 sec.5, T.31 N., R.20 W., Brown County, Hydrologic Unit 10150004, on right bank 10 ft (3 m) downstream from county road bridge, 1 mi (2 km) downstream from Bone Creek, and 5.5 mi (8.8 km) southeast of Riverview.

DRAINAGE AREA.--390 mi^2 (1,010 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1948 to January 1954, September 1954 to current year.

REVISED RECORDS.--WSP 1729: 1952(M).

GAGE.--Water-stage recorder. Datum of gage is 1,983.34 ft (604.522 m) National Geodetic Vertical Datum of 1929, (levels by Water and Power Resources Service). Prior to Dec. 7, 1962, at site 100 ft (30 m) upstream at present datum. Dec. 7, 1962 to Sept. 20, 1978 at site 3 ft (0.9 m) upstream at present datum.

REMARKS.--Records good except those above 250 ft^3/s (7.08 m^3/s), which are poor. Flow includes return water from Ainsworth Irrigation District since 1965.

AVERAGE DISCHARGE.--31 years (1948-53, 1954-80), 130 ft^3/s (3.680 m^3/s), 94,180 acre-ft/yr (116 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,650 ft^3/s (273 m^3/s) July 1, 1962, gage height, 15.68 ft (4.779 m), backwater from fallen bridge, from rating curve extended above 3,600 ft^3/s (102 m^3/s) on basis of slope-area measurement of peak flow; minimum daily, 44 ft^3/s (1.25 m^3/s) Jan. 10, 1963.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft^3/s (11.3 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 29	0700	460	13.0	4.80	1.463
June 14	2200	*470	13.3	4.83	1.472

Minimum daily discharge, 115 ft^3/s (3.26 m^3/s) July 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	143	156	156	148	155	156	187	150	250	153	142	158
2	142	151	158	146	156	150	210	150	239	145	143	158
3	151	149	163	146	156	163	245	150	263	142	147	158
4	150	152	167	148	159	161	210	153	263	150	142	147
5	152	150	168	148	150	153	255	150	281	155	143	160
6	153	146	170	142	153	150	205	159	263	154	150	158
7	154	149	167	143	156	150	230	163	227	151	147	142
8	149	145	168	140	158	161	195	171	215	142	150	140
9	144	142	172	135	155	161	176	178	169	147	150	135
10	148	144	174	140	150	164	173	180	150	120	143	132
11	150	145	163	147	156	163	171	180	153	132	171	142
12	146	146	161	153	156	164	169	191	166	121	150	127
13	141	145	158	155	163	166	164	215	161	126	171	127
14	144	144	156	162	158	166	164	213	166	132	171	120
15	147	149	154	161	155	171	164	211	276	121	171	160
16	144	150	136	156	155	164	163	201	130	127	160	132
17	142	148	153	157	157	161	167	207	162	126	150	127
18	142	149	153	150	160	166	167	211	163	126	150	132
19	148	147	151	156	175	166	169	213	163	126	147	132
20	143	144	151	156	205	161	164	210	160	127	150	120
21	138	143	152	160	205	159	167	227	160	121	150	160
22	139	140	147	157	180	150	167	227	150	121	160	127
23	140	153	150	160	170	156	161	221	150	115	160	128
24	143	159	149	164	176	153	159	227	150	126	147	132
25	141	158	149	150	170	156	150	231	165	127	147	128
26	145	158	150	151	172	156	150	223	151	125	171	127
27	142	154	150	145	170	165	150	223	168	126	147	160
28	141	149	150	140	176	170	150	225	167	127	150	160
29	143	152	153	154	150	170	150	271	150	120	151	128
30	150	154	150	154	---	172	156	296	156	127	150	128
31	160	---	150	150	---	175	---	271	---	127	150	---
TOTAL	4515	4470	4849	4716	4603	5029	5651	6366	5306	4107	4800	4156
MEAN	146	149	156	152	159	162	188	205	177	132	155	139
MAX	160	159	174	164	205	175	255	296	276	155	171	160
MIN	138	142	136	135	153	153	150	150	130	115	142	120
AC-FT	8960	8880	9620	9350	9130	9980	11210	12580	10600	8150	9520	8240

CAL YR 1979 TOTAL 58063 MEAN 159 MAX 261 MIN 136 AC-FT 115200

WTR YR 1980 TOTAL 59160 MEAN 162 MAX 296 MIN 115 AC-FT 117300

06463500 LONG PINE CREEK NEAR RIVERVIEW, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1977 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPERATURE, WATER (DEG C) (00010)	COLOR (PLATINUM COBALT UNITS) (00080)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)
OCT 25...	1120	141	179	7.8	10.0	5	68	0	22
NOV 15...	1400	154	178	7.8	9.5	10	74	0	24
DEC 05...	1340	166	193	7.7	7.0	10	71	0	23
JAN 16...	1100	156	173	7.3	4.0	10	70	0	23
FEB 27...	1315	182	179	7.5	9.0	20	72	0	23
MAR 19...	1125	163	173	7.6	10.5	20	68	0	22
APP 09...	1220	176	191	7.6	10.5	30	75	0	24
MAY 29...	1150	271	154	7.2	18.5	320	59	0	19
JUN 12...	1200	164	173	7.7	22.5	5	65	0	21
JUL 24...	1350	131	176	7.7	25.5	15	68	0	22
AUG 13...	1125	170	186	7.8	20.0	15	69	0	22
SEP 04...	1205	140	176	7.4	17.0	0	67	0	22

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)
OCT 25...	3.1	7.0	.4	6.1	74	6.3	2.6	.2	55
NOV 15...	3.3	8.2	.4	5.5	78	4.0	2.4	.3	56
DEC 05...	3.4	8.3	.4	6.7	85	7.1	3.3	.2	52
JAN 16...	3.0	7.5	.4	5.3	78	4.6	2.3	.3	54
FEB 27...	3.5	8.3	.4	5.8	79	2.7	3.0	.3	53
MAR 19...	3.2	7.6	.4	5.0	75	2.6	2.4	.2	51
APR 09...	3.7	9.3	.5	6.9	81	4.0	3.1	.3	52
MAY 29...	2.7	5.8	.3	7.5	63	2.2	14	.3	35
JUN 12...	3.1	7.7	.4	5.1	76	3.7	1.9	.3	54
JUL 24...	3.1	7.1	.4	5.9	79	4.0	1.7	.4	56
AUG 13...	3.3	7.7	.4	7.4	79	4.2	2.9	.4	54
SEP 04...	3.0	7.0	.4	5.2	74	3.3	1.9	.3	57

06463500 LONG PINE CREEK NEAR RIVERVIEW, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
OCT									
25...	153	.21	58.2	1.3	--	.190	20	20	7
NOV									
15...	156	.21	64.9	1.3	.270	.200	0	20	2
DEC									
05...	162	.22	72.6	1.6	.420	.010	10	20	2
JAN									
16...	154	.21	64.9	1.6	.320	.210	20	20	<1
FEB									
27...	154	.21	75.7	1.5	.300	.180	30	20	2
MAR									
19...	145	.20	63.8	1.3	--	.220	20	30	2
APR									
09...	157	.21	74.6	1.2	--	.230	30	50	3
MAY									
29...	129	.18	94.4	.98	--	.460	70	90	4
JUN									
12...	147	.20	65.1	1.1	.260	--	10	10	1
JUL									
24...	152	.21	53.8	.85	.290	.210	60	20	<3
AUG									
13...	154	.21	70.7	1.1	--	.280	120	30	1
SEP									
04...	147	.20	55.6	.68	.190	.160	40	20	<1

06464500 KEYA PAHA RIVER AT WEWELA, SD

LOCATION.--Lat 43°01'42", long 99°46'45", in SE1/4 sec.24, T.95 N., R.76 W., Tripp County, Hydrologic Unit 10150006, on left bank 13 ft (4 m) downstream from bridge on U.S. Highway 183, 1.0 mi (1.6 km) north of Wewela, 4.5 mi (7.2 km) upstream from Holt Creek, and 11.5 mi (18.5 km) downstream from Lost Creek.

DRAINAGE AREA.--1,070 mi² (2,770 km²), approximately.

PERIOD OF RECORD.--November 1937 to September 1940, October 1947 to current year. Monthly discharge only for October 1947, published in WSP 1309.

GAGE.--Water-stage recorder. Datum of gage is 2,049.78 ft (624.773 m) National Geodetic Vertical Datum of 1929. Prior to June 21, 1957, nonrecording gage at site 13 ft (4.0 m) upstream at same datum.

REMARKS.--Records good except those for winter period, which are poor. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--35 years (water years 1939-40, 1948-80), 67.5 ft³/s (1.912 m³/s), 48,900 acre-ft/yr (60.3 hm³/yr); median of yearly mean discharges, 58 ft³/s (1.643 m³/s), 42,000 acre-ft/yr (51.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,430 ft³/s (154 m³/s) Mar. 31, 1952, gage height, 13.08 ft (3.987 m); maximum gage height, 13.5 ft (4.11 m) Mar. 25, 1950, from floodmark (backwater from ice); no flow Jan. 10 to Feb. 15, 1949, Aug. 19 to Sept. 14, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 200 ft³/s (5.66 m³/s) Apr. 4, gage height, 2.26 ft (0.689 m); maximum gage height, 2.39 ft (0.728 m) Feb. 23 (backwater from ice), no peak above base of 250 ft³/s (7.08 m³/s); minimum daily discharge, 1.9 ft³/s (0.054 m³/s) Aug. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	63	18	42	45	70	82	46	45	25	3.7	7.6
2	18	59	19	40	45	65	97	46	43	23	3.4	7.8
3	18	56	20	40	48	70	128	45	38	21	3.2	7.6
4	19	54	21	42	50	75	168	44	36	20	2.8	7.5
5	20	54	22	40	55	75	187	42	33	22	2.6	7.0
6	21	52	22	40	55	75	173	40	32	33	2.4	6.7
7	21	53	21	40	53	80	166	39	35	20	1.9	6.5
8	22	53	21	38	53	90	176	39	36	18	2.0	5.9
9	23	51	22	30	50	95	140	39	35	18	3.3	5.8
10	24	49	25	35	50	90	112	39	34	18	6.0	6.0
11	24	51	27	40	52	95	106	39	32	16	10	6.4
12	25	53	27	40	52	100	100	38	30	14	9.0	6.9
13	25	51	25	43	50	110	95	39	29	12	8.5	6.8
14	26	49	25	45	48	105	90	40	27	13	7.7	7.2
15	28	47	23	45	45	100	84	37	29	12	8.9	7.7
16	28	47	23	43	45	103	77	39	29	11	12	7.7
17	28	47	25	43	50	93	73	41	36	8.8	13	8.2
18	29	47	30	42	60	84	70	42	47	8.6	12	8.3
19	29	46	31	42	65	79	68	40	50	7.8	11	9.0
20	29	46	40	40	45	78	66	38	51	7.4	11	9.7
21	32	40	45	40	38	75	62	37	63	7.2	11	11
22	34	30	43	40	38	73	59	34	51	6.7	10	11
23	36	25	43	42	37	71	57	33	44	6.4	9.8	12
24	36	22	45	44	35	69	53	32	37	5.8	8.7	12
25	35	21	45	45	40	68	52	31	33	5.6	8.2	12
26	34	20	44	42	60	67	51	31	31	5.6	9.4	12
27	34	20	43	41	80	68	50	29	32	5.3	9.5	12
28	33	19	43	40	78	73	49	28	29	5.1	8.9	13
29	36	19	42	40	75	77	48	29	25	4.7	8.4	12
30	45	18	43	41	---	76	47	42	25	4.4	7.6	13
31	58	---	45	43	---	76	---	45	---	3.9	7.2	---
TOTAL	887	1262	968	1268	1497	2525	2786	1183	1097	389.3	233.1	266.3
MEAN	28.6	42.1	31.2	40.9	51.6	81.5	92.9	38.2	36.6	12.6	7.52	8.88
MAX	58	63	45	45	80	110	187	46	63	33	13	13
MIN	17	18	18	30	35	65	47	28	25	3.9	1.9	5.8
AC-FT	1760	2500	1920	2520	2970	5010	5530	2350	2180	772	462	528

CAL YR 1979 TOTAL 22593.7 MEAN 61.9 MAX 572 MIN 3.1 AC-FT 44810
WTR YR 1980 TOTAL 14361.7 MEAN 39.2 MAX 187 MIN 1.9 AC-FT 28490

06464900 KEYA PAHA RIVER NEAR NAPER, NE

LOCATION.--Lat 42°55'00", long 99°05'50", in SE1/4SE1/4 sec.17, T.34 N., R.15 W., Boyd County, Hydrologic Unit 10150006, on left bank 70 ft (21 m) upstream from highway bridge, 3.3 mi (5.3 km) south of Naper, and 8.6 mi (13.8 km) upstream from mouth.

DRAINAGE AREA.--1,630 mi² (4,220 km²), approximately.

PERIOD OF RECORD.--October 1957 to current year.

REVISED RECORDS.--WSP 1709: 1959(M).

GAGE.--Water-stage recorder. Altitude of gage is 1,680 ft (512 m), from topographic map. Prior to May 2, 1958, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter period, which are poor. Minor diversions for irrigation above station.

AVERAGE DISCHARGE.--23 years, 128 ft³/s (3.625 m³/s), 92,740 acre-ft/yr (0.114 km³/yr); median of yearly mean discharges, 113 ft³/s (3.200 m³/s), 81,900 acre-ft/yr (0.101 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,280 ft³/s (263 m³/s) July 1, 1962, gage height, 10.91 ft (3.325 m); maximum gage height, 13.34 ft (4.066 m) Mar. 23, 1960, backwater from ice; no flow July 22-30, Aug. 10, 11, 1976, Aug. 3, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 342 ft³/s (9.69 m³/s) Apr. 3 at 1300, gage height, 5.88 ft (1.792 m), no peak above base of 900 ft³/s (25.5 m³/s); maximum gage height, 6.74 ft (2.054 m), Mar. 1, backwater from ice; no flow Aug. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	132	32	78	58	90	196	84	108	20	.53	17
2	25	130	34	74	62	130	224	85	98	16	2.0	18
3	25	122	36	72	62	120	266	81	90	13	.00	17
4	25	111	38	74	68	116	237	78	78	12	.81	18
5	26	112	40	74	74	112	237	75	71	12	1.5	16
6	27	101	38	76	76	130	214	69	67	20	.88	15
7	28	98	37	64	72	140	192	62	75	36	.07	15
8	30	98	39	49	70	150	175	60	68	35	.87	13
9	31	86	44	52	70	160	169	61	60	21	2.4	12
10	32	82	52	58	68	140	198	59	60	16	3.6	10
11	32	72	48	54	66	150	199	58	49	11	2.8	9.7
12	32	69	43	58	72	170	175	60	42	8.7	1.2	10
13	33	66	44	64	70	200	169	76	47	7.0	3.8	10
14	35	66	45	66	66	164	163	77	46	7.3	3.3	11
15	36	64	39	64	62	175	158	73	57	7.0	4.3	14
16	36	61	41	60	58	179	151	78	51	7.1	7.4	11
17	37	61	54	62	64	171	139	88	49	6.3	10	11
18	42	61	76	56	76	170	125	86	53	5.8	13	11
19	44	59	84	54	100	160	117	79	57	5.4	13	12
20	43	59	82	54	130	140	117	76	71	6.1	13	15
21	44	54	80	56	114	124	111	71	73	5.3	14	15
22	53	47	80	56	100	121	110	62	71	4.8	14	16
23	55	35	76	62	98	108	104	55	84	4.4	15	15
24	55	38	80	66	94	101	93	52	66	4.2	15	16
25	53	37	80	64	88	99	83	48	59	5.1	15	16
26	54	36	78	60	110	102	87	48	52	5.0	26	16
27	51	35	76	56	130	99	91	46	42	4.2	28	15
28	48	34	74	56	150	106	89	46	34	3.6	23	15
29	48	33	72	54	120	124	87	51	29	2.2	20	15
30	64	32	74	54	---	140	80	139	23	.01	17	15
31	108	---	76	56	---	168	---	120	---	2.1	19	---
TOTAL	1277	2091	1792	1903	2448	4259	4556	2203	1830	313.61	290.46	419.7
MEAN	41.2	69.7	57.8	61.4	84.4	137	152	71.1	61.0	10.1	9.37	14.0
MAX	108	132	84	78	150	200	266	139	108	36	28	18
MIN	25	32	32	49	58	90	80	46	23	.01	.00	9.7
AC-FT	2530	4150	3550	3770	4860	8450	9040	4370	3630	622	576	832

CAL YR 1979 TOTAL 39077.00 MEAN 107 MAX 608 MIN 14 AC-FT 77510
WTR YR 1980 TOTAL 23382.77 MEAN 63.9 MAX 266 MIN .00 AC-FT 46380

06465000 NIOBRARA RIVER NEAR SPENCER, NE

LOCATION.--Lat 42°48'33", long 98°30'19", in SE1/4NW1/4 sec.30, T.33 N., R.11 W., Boyd County, Hydrologic Unit 10150007, at Spencer powerplant dam 5 mi (8 km) southeast of Spencer.

DRAINAGE AREA.--12,100 mi^2 (31,300 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to December 1908 (gage heights only); August 1913 to September 1914; October to December 1914, April to September 1915 (gage heights only); August 1927 tc September 1936, June 1940 to current year. Published as "near Lynch" 1913-15. Monthly discharge only for some pericds, published in WSP 1309.

REVISED RECORDS.--WDR NE-67: Drainage area.

GAGE.--Water-stage recorder and hourly log of power plant operation. Datum of gage is 1,473.67 ft (449.175 m) National Geodetic Vertical Datum of 1929. Elevation of taintor gate sill, 1,491.12 ft (454.493 m) National Geodetic Vertical Datum of 1929. Prior to December 1908, nonrecording gage on former highway bridge 275 ft (83.8 m) downstream and Aug. 1, 1913, to Sept. 30, 1915, nonrecording gage at highway bridge 10 mi (16 km) downstream at different datums. Aug. 1, 1927 to Sept. 30, 1936, and June 14, 1940, to Sept. 30, 1944, discharge computed as flow through powerhouse and over dam. Oct. 1, 1944, to Nov. 10, 1954, water-stage recorder at site 275 ft (83.8 m) downstream at datum 4.98 ft (1.518 m) higher, and Nov. 11, 1954, to Sept. 30, 1957, at site 0.3 mi (0.5 km) downstream at datum 9.78 ft (2.981 m) lcwer. Oct. 1, 1957, to Oct. 21, 1958, discharge computed as flow through powerhouse and over dam. Oct. 28, 1958, to Aug. 13, 1963, water-stage recorder at site 225 ft (68.6 m) downstream at present datum. Aug. 14, 1963, gage moved to present site with discharge computed as flow through powerhouse and over dam.

REMARKS.--Records good. Natural flow of stream affected by irrigation and power developments. Daily discharge determined from flow through turbines and taintor gates, computed from relation between discharge, head, and gate openings.

COOPERATION.--Powerplant log furnished by Nebraska Public Power District.

AVERAGE DISCHARGE.--50 years (1913-14, 1927-36, 1940-80), 1,397 ft^3/s (39.56 m^3/s), 1,012,000 acre-ft/yr (1.25 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,400 ft^3/s (776 m^3/s) Mar. 12, 1955, gage height, 12.16 ft (3.706 m), site and datum then in use; minimum daily, 5 ft^3/s (0.14 m^3/s) Nov. 14, Dec. 18, 19, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 5,440 ft^3/s (154 m^3/s) Mar. 15; minimum daily, 219 ft^3/s (6.20 m^3/s) Jan. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	902	2320	713	1560	647	1660	1860	1400	1820	955	538	942
2	913	1840	824	1490	785	1260	1930	1400	1570	891	529	1130
3	905	1620	1080	1190	903	1160	2590	1390	1430	773	501	905
4	936	1560	1420	1010	1050	1680	2680	1350	1310	756	497	777
5	916	1620	1880	928	1270	1890	2540	1360	1270	733	680	737
6	910	1910	2220	957	1460	1620	2370	1360	1240	807	481	718
7	893	2280	2270	376	1770	1620	2350	1260	1360	720	466	678
8	935	1740	2000	580	1850	1760	2330	1250	1370	699	455	650
9	993	1490	1870	359	1760	2030	2280	1190	1260	688	633	653
10	1020	1350	2220	219	1650	2480	2190	1220	1180	681	661	685
11	952	1550	1840	262	1610	2520	2120	1220	1120	670	754	717
12	943	1420	994	286	1510	2380	2290	1330	1030	646	775	697
13	1030	1420	1080	484	1510	2170	2270	1570	1010	612	891	747
14	1040	1360	1340	952	1480	2370	2300	1480	1060	590	872	779
15	1010	1410	1570	1790	1440	5440	2260	1440	1620	603	827	795
16	1010	1480	1070	2130	1440	3440	2200	1540	1850	623	1250	774
17	1050	1460	795	1900	1330	1970	2050	1710	1430	612	1160	846
18	1060	1440	674	1870	1180	1970	1910	1650	1600	634	1060	779
19	1240	1470	703	1830	1260	1930	1720	1600	1380	598	852	804
20	1110	1490	1180	1690	1570	1970	1580	1320	1370	641	774	833
21	1150	1400	1970	1660	1860	1850	1940	1300	1130	655	850	876
22	1460	695	2010	1680	2270	1740	1590	1320	1310	688	836	894
23	1440	964	2060	1570	2320	1680	1540	1300	1280	581	884	913
24	1220	1230	1920	1790	2170	1640	1490	1240	1320	564	786	881
25	1430	1380	1790	1860	2150	1780	1470	1180	1110	592	750	891
26	1380	1520	1840	1590	2240	1490	1470	1110	1080	644	1160	892
27	1410	1530	1880	1260	2710	1630	1430	1120	969	625	1340	826
28	1410	1320	1740	1080	2660	1720	1440	1080	957	610	988	777
29	1390	809	1730	873	2180	2040	1390	1180	826	615	911	822
30	1770	828	1780	771	---	2030	1350	2280	790	573	827	849
31	2330	---	1760	721	---	1880	---	2170	---	523	897	---
TOTAL	36158	43906	48223	36758	48035	62800	58930	43320	38052	20602	24885	24267
MEAN	1166	1464	1556	1186	1656	2026	1964	1397	1268	665	803	809
MAX	2330	2320	2270	2130	2710	5440	2680	2280	1850	955	1340	1130
MIN	893	695	674	219	647	1160	1350	1080	790	523	455	650
AC-FT	71720	87090	95650	72910	95280	124600	116900	85930	75480	40860	49360	48130

CAL YR 1979 TOTAL 520238 MEAN 1425 MAX 4100 MIN 630 AC-FT 1032000
WTR YR 1980 TOTAL 485936 MEAN 1328 MAX 5440 MIN 219 AC-FT 963900

06465000 NIOBRARA RIVER NEAR SPENCER, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974-80.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICRO-MHOS) (00095)	TEMPERATURE, WATER (DEG C) (00010)
OCT 10...	1035	1080	259	9.0
NOV 07...	1520	2130	244	6.0
DEC 19...	1055	679	297	.5
JAN 30...	1550	798	242	.5
MAR 11...	1055	2540	235	1.0
APR 01...	1530	1970	164	9.5
MAY 14...	1320	1410	202	17.5
JUN 04...	1230	1630	255	22.0
AUG 06...	1330	457	268	26.5
SEP 17...	1250	850	251	15.0

06465310 EAGLE CREEK NEAR REDBIRD, NE

LOCATION.--Lat 42°45'51", long 98°34'13" in SE1/4NW1/4 sec.11, T.32 N., R.11 W., Holt County, Hydrologic Unit 10150007, on left bank 12 ft (4 m) downstream from bridge on the county road, 7 mi (11 km) west of Redbird.

DRAINAGE AREA.--206 mi^2 (534 km^2).

PERIOD OF RECORD.--October 1978 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,465 ft (446.5 m) from topographic map.

REMARKS.--Records good except those for winter period, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 183 ft^3/s (5.18 m^3/s) Sept. 1, 1980, gage height, 5.92 ft (1.804 m); maximum gage height recorded, 6.38 ft (1.945 m) Feb. 17, 1980, backwater from ice; minimum daily discharge, 1.9 ft^3/s (0.054 m^3/s) Aug. 7, 8, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 183 ft^3/s (5.18 m^3/s) Sept. 1, gage height, 5.92 ft (1.804 m); maximum gage height recorded, 6.38 ft (1.945 m) Feb. 17, backwater from ice; minimum daily discharge, 1.9 ft^3/s (0.054 m^3/s) Aug. 7, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	65	56	32	39	45	66	44	42	45	4.2	34
2	35	56	54	30	46	52	63	46	37	31	5.4	68
3	32	55	56	28	52	60	84	45	37	24	5.7	34
4	32	56	60	27	60	52	76	44	37	21	5.0	27
5	34	58	58	26	58	45	67	44	37	21	3.2	24
6	35	56	54	23	56	60	63	42	38	23	3.0	24
7	35	54	52	21	56	69	60	41	35	17	1.9	24
8	34	57	50	19	60	75	57	41	33	18	1.9	22
9	35	54	52	23	66	75	54	42	34	14	7.7	18
10	36	53	54	25	70	80	54	42	34	13	20	18
11	37	51	50	23	68	66	54	41	30	12	22	20
12	37	55	44	22	72	61	52	43	28	13	16	21
13	36	53	47	25	74	57	52	47	33	11	12	21
14	37	54	50	28	76	64	49	45	32	11	10	24
15	41	56	41	32	74	74	50	43	40	9.7	11	25
16	43	55	34	33	70	68	50	45	35	8.3	24	23
17	42	56	42	37	86	60	50	50	33	7.2	23	24
18	44	54	50	40	110	58	49	49	30	7.0	20	23
19	45	53	44	42	130	60	47	46	29	7.1	15	25
20	43	54	45	44	125	57	47	46	31	7.3	13	25
21	44	50	43	50	120	57	46	44	29	8.3	12	27
22	48	47	41	48	114	59	45	42	27	7.2	12	30
23	47	44	38	54	125	56	43	42	27	4.6	13	26
24	48	52	35	58	140	56	44	42	24	4.8	11	25
25	46	60	36	52	120	57	43	39	25	12	13	25
26	47	66	39	46	134	59	43	40	23	11	25	24
27	48	66	38	42	150	60	45	39	19	15	32	24
28	47	62	36	39	100	61	45	38	18	8.5	31	25
29	49	58	35	35	60	64	44	37	20	4.9	26	25
30	59	60	34	32	---	65	44	47	19	4.2	25	23
31	72	---	33	30	---	70	---	42	---	3.9	24	---
TOTAL	1303	1670	1401	1066	2511	1902	1586	1338	916	401.0	448.0	778
MEAN	42.0	55.7	45.2	34.4	86.6	61.4	52.9	43.2	30.5	12.9	14.5	25.9
MAX	72	66	60	58	150	80	84	50	42	45	32	68
MIN	32	44	33	19	39	45	43	37	18	3.9	1.9	18
AC-FT	2580	3310	2780	2110	4980	3770	3150	2650	1820	795	889	1540

CAL YR 1979 TOTAL 17025.0 MEAN 46.6 MAX 100 MIN 20 AC-FT 33770
WTR YR 1980 TOTAL 15320.0 MEAN 41.9 MAX 150 MIN 1.9 AC-FT 30390

06465500 NIOBRARA RIVER NEAR VERDEL, NE
National stream-quality accounting network station

LOCATION.--Lat 42°44'25", long 98°12'45", near center of N1/2 sec.23, T.32 N., R.8 W., Knox County, Hydrologic Unit 10150007, on left bank 4 ft (1 m) downstream from Pishelville Bridge, 6 mi (10 km) south of Verdel, and 7 mi (11 km) upstream from Verdigre Creek.

DRAINAGE AREA.--12,600 mi^2 (32,600 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1938 to May 1940, June 1958 to current year.

REVISED RECORDS.--WDR NE-67: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,308.12 ft (398.715 m) National Geodetic Vertical Datum of 1929. Apr. 25, 1938, to June 16, 1939, nonrecording gage at same site and datum. June 17, 1939, to June 13, 1940, nonrecording gage 250 ft (76 m) downstream at present datum.

REMARKS.--Records fair. Natural flow of stream affected by irrigation and power developments.

AVERAGE DISCHARGE.--23 years, 1,519 ft^3/s (43.02 m^3/s), 1,101,000 acre-ft/yr (1.36 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,000 ft^3/s (1,100 m^3/s) Mar. 27, 1960, gage height, 10.10 ft (3.078 m); maximum gage height, 10.62 ft (3.237 m) Mar. 12, 1966, backwater from ice; minimum daily discharge, 104 ft^3/s (2.95 m^3/s) Nov. 30, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 4,890 ft^3/s (138 m^3/s) Mar. 15; maximum gage height, 6.38 ft (1.945 m) Feb. 23, backwater from ice; minimum daily discharge, 288 ft^3/s (8.16 m^3/s) Jan. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1340	2600	901	1690	749	1950	1990	1490	2090	991	551	1040
2	991	2120	890	1610	845	1510	2010	1520	1640	1030	541	1260
3	988	1800	1130	1360	995	1220	2540	1510	1640	830	537	1060
4	1010	1720	1430	1120	1130	1660	2930	1450	1380	815	512	864
5	1000	1720	1890	993	1320	1970	2730	1470	1340	799	612	804
6	994	1880	2210	1140	1560	1900	2550	1480	1380	803	566	792
7	984	2250	2490	548	1790	1760	2540	1400	1380	824	469	740
8	987	2230	2170	553	2010	1880	2450	1340	1450	726	467	713
9	1060	1670	2010	530	1950	2090	2440	1280	1420	737	570	691
10	1120	1450	2190	257	1870	2520	2360	1340	1270	717	717	727
11	1050	1620	2280	288	1780	2720	2260	1270	1200	713	780	757
12	1020	1600	1270	340	1740	2610	2310	1390	1140	668	797	745
13	1090	1540	1130	434	1690	2330	2460	1600	1050	670	898	786
14	1140	1500	1320	831	1680	2370	2410	1630	1130	616	903	830
15	1110	1540	1650	1630	1620	4890	2410	1590	1380	620	837	848
16	1110	1610	1350	2180	1630	4220	2330	1580	2230	635	1220	841
17	1160	1610	994	2020	1570	2470	2260	1750	1400	616	1240	881
18	1130	1580	803	2020	1510	2130	2040	1830	1780	665	1130	862
19	1330	1580	778	1930	1490	2060	1920	1730	1490	615	981	851
20	1230	1580	1060	1860	1770	2130	1720	1510	1390	643	814	879
21	1180	1610	1850	1760	2050	2050	1850	1430	1330	684	867	931
22	1520	1020	2130	1820	2420	1910	1930	1430	1270	720	860	958
23	1590	928	2130	1690	2640	1850	1520	1410	1370	600	915	984
24	1390	1290	2090	1860	2570	1800	1720	1350	1370	573	848	976
25	1490	1490	1880	2010	2450	1920	1570	1290	1210	610	768	929
26	1490	1620	1930	1750	2480	1630	1560	1200	1140	654	999	963
27	1540	1700	1970	1520	2930	1770	1530	1210	1080	674	1540	905
28	1510	1630	1880	1220	2990	1790	1570	1190	1010	636	1120	840
29	1510	1070	1830	1010	2500	2130	1530	1180	921	628	996	869
30	1710	922	1830	896	---	2210	1470	2060	836	600	901	897
31	2350	---	1870	808	---	2130	---	2400	---	536	901	---
TOTAL	39124	48480	51336	39718	53729	67580	62910	46310	40717	21652	25857	26223
MEAN	1262	1616	1656	1281	1853	2180	2097	1494	1357	698	834	874
MAX	2350	2600	2490	2180	2990	4890	2930	2400	2230	1030	1540	1260
MIN	984	922	778	288	749	1220	1470	1180	836	536	467	691
AC-FT	77600	96160	101800	78780	106600	134000	124800	91860	80760	42950	51290	52010

CAL YR 1979 TOTAL 550385 MEAN 1508 MAX 4150 MIN 657 AC-FT 1092000
WTR YR 1980 TOTAL 523636 MEAN 1431 MAX 4890 MIN 288 AC-FT 1039000

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958-65, 1967 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1975 to current year.
WATER TEMPERATURES: June 1958 to September 1965, October 1966 to current year.
SUSPENDED-SEDIMENT DISCHARGE: October 1971 to current year.

INSTRUMENTATION.--Temperature recorder since June 14, 1958.

REMARKS.--Prior to July 1, 1971, sediment records were obtained by U.S. Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 470 micromhos Dec. 22, 1976; minimum daily, 110 micromhos Nov. 22, 1976.
WATER TEMPERATURES: Maximum, 38.0°C July 22, 1964, July 20, 1974; minimum, 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily, 12,000 mg/L June 8, 1975; minimum daily, 50 mg/L Dec. 31, Jan. 1, 3, 5, 6, 1978.
SEDIMENT LOADS: Maximum daily, 423,000 tons (385,000 tonnes) Mar. 19, 1979; minimum daily, 60 tons (55 tonnes) Dec. 07, 1972.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 393 micromhos Jan. 5; minimum daily, 185 micromhos Dec. 3.
WATER TEMPERATURES: Maximum, 36.5°C July 10; minimum, 0.0°C on several days during winter period.
SEDIMENT CONCENTRATIONS: Maximum daily, 3,600 mg/L Feb. 16; minimum daily, 250 mg/L Aug. 13.
SEDIMENT LOADS: Maximum daily, 40,000 tons (36,400 tonnes) Mar. 15; minimum daily, 600 tons (546 tonnes) Aug. 12.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT											
11...	1015	1050	241	7.3	12.0	45	45	10.0	4.8	410	520
NOV											
07...	0930	1670	251	7.7	1.0	160	70	12.2	4.6	K780	4700
DEC											
18...	1250	806	332	7.3	.5	15	18	12.9	4.3	K19	500
JAN											
29...	1250	920	295	7.2	.5	15	13	14.0	4.3	K11	88
FEB											
20...	1205	1600	273	7.2	.5	20	23	13.3	1.1	K19	84
MAR											
19...	1015	2300	255	7.4	6.0	140	230	11.0	2.2	81	720
APR											
22...	1055	1650	300	7.9	21.5	120	140	9.2	3.4	110	140
MAY											
13...	1050	1710	270	7.9	12.0	55	60	12.0	2.6	190	740
JUN											
24...	1120	1220	244	8.3	24.5	50	55	8.5	5.8	K4	150
JUL											
15...	1400	536	250	8.3	32.0	25	3.7	6.7	4.6	81	120
AUG											
05...	1330	482	249	8.1	26.0	20	17	7.8	5.6	K7	K48
SEP											
18...	1050	887	243	7.9	21.5	25	27	9.1	5.6	K15	96

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
OCT										
11...	100	0	33	4.3	9.1	.4	6.1	110	14	1.7
NOV										
07...	100	0	33	4.6	8.7	.4	5.9	110	16	2.0
DEC										
18...	140	0	45	6.1	11	.4	6.9	140	25	2.9
JAN										
29...	140	6	44	6.3	12	.4	6.7	130	30	2.1
FEB										
20...	110	3	37	5.1	11	.5	5.9	110	19	2.1
MAR										
19...	110	8	35	4.6	9.7	.4	5.9	98	22	2.1
APR										
22...	120	3	40	5.6	14	.6	8.9	120	26	6.3
MAY										
13...	110	0	35	4.7	11	.5	7.1	110	20	1.8
JUN										
24...	110	0	35	4.3	11	.5	7.4	120	15	1.6
JUL										
15...	98	0	32	4.3	9.8	.4	8.1	110	14	1.7
AUG										
05...	96	0	32	3.9	9.4	.4	7.4	110	11	1.7
SEP										
18...	100	0	33	4.4	8.7	.4	6.2	110	9.2	1.7

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
OCT										
11...	.5	48	190	186	.26	539	.66	.66	.01	.00
NOV										
07...	.3	42	197	184	.27	888	1.1	1.1	.24	.17
DEC										
18...	.3	52	237	238	.32	516	1.1	1.1	.04	.01
JAN										
29...	.4	54	225	238	.31	559	1.1	.98	.01	.00
FEB										
20...	.3	49	202	201	.27	873	1.1	1.1	.06	.06
MAR										
19...	.3	43	204	185	.28	1270	.77	.77	.15	.06
APR										
22...	.4	50	229	225	.31	1020	.39	.37	.01	.00
MAY										
13...	.4	46	207	194	.28	956	.33	.33	.01	.00
JUN										
24...	.4	50	201	197	.27	662	.56	.02	.02	.02
JUL										
15...	.6	59	200	196	.27	289	.00	.00	.00	.00
AUG										
05...	.5	57	208	189	.28	271	.04	.01	.12	.03
SEP										
18...	.3	52	176	182	.24	422	.00	.00	.00	.00

DATE	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N) (00624)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
OCT										
11...	.81	.46	.82	.36	.46	1.5	1.1	.150	.060	5.9
NOV										
07...	3.5	.65	3.7	2.9	.82	4.8	1.9	.800	.050	--
DEC										
18...	.55	.55	.58	.00	.58	1.7	1.7	.140	.090	4.3
JAN										
29...	.41	.00	.42	.42	.00	1.5	.98	.160	.110	4.6
FEB										
20...	.57	.26	.63	.31	.32	1.7	1.4	.140	.100	--
MAR										
19...	1.7	.40	1.8	1.3	.46	2.6	1.2	.560	.110	16
APR										
22...	2.6	.31	2.6	2.3	.31	3.0	.68	.380	.080	14
MAY										
13...	.87	.41	.88	.47	.41	1.2	.74	.200	.050	--
JUN										
24...	1.2	.41	1.2	.77	.43	1.8	.45	.240	.030	15
JUL										
15...	.98	.69	.98	.29	.69	.98	.69	.160	.010	9.3
AUG										
05...	.62	.27	.74	.44	.30	.78	.31	.150	.040	--
SEP										
18...	.87	.30	.87	.57	.30	.87	.30	.090	.000	5.5

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ARSENIC SUS-PENDED TOTAL (UG/L AS AS) (01001)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA) (01006)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD) (01026)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR) (01031)
NOV 07...	0930	4	4	300	200	100	1	0	<1	4	4
DEC 18...	1250	--	--	--	--	--	--	--	--	--	--
FEB 20...	1205	1	4	400	300	100	1	--	--	0	0
MAR 19...	1015	--	--	--	--	--	--	--	--	--	--
MAY 13...	1050	1	6	100	0	100	0	--	<1	0	0
JUN 24...	1120	--	--	--	--	--	--	--	--	--	--
AUG 05...	1330	2	6	200	100	90	0	--	<1	10	0
SEP 18...	1050	--	--	--	--	--	--	--	--	--	--

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO) (01036)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU) (01041)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE) (01044)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)
NOV 07...	0	6	3	<3	13	12	1	8000	8000	20	15
DEC 18...	--	--	--	--	--	--	--	--	--	--	--
FEB 20...	0	3	0	<3	21	21	0	850	790	60	8
MAR 19...	--	--	--	--	--	--	--	--	--	--	--
MAY 13...	0	0	--	<3	5	3	2	3300	3300	20	4
JUN 24...	--	--	--	--	--	--	--	--	--	--	--
AUG 05...	10	3	--	<3	20	16	4	1100	1100	<10	11
SEP 18...	--	--	--	--	--	--	--	--	--	--	--

DATE	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB) (01050)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN) (01054)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG) (71895)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI) (01066)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)
NOV 07...	15	0	800	800	3	.1	.1	.0	17	17	0
DEC 18...	--	--	--	--	--	--	--	--	--	--	--
FEB 20...	1	7	90	80	10	.1	.0	.1	3	3	0
MAR 19...	--	--	--	--	--	--	--	--	--	--	--
MAY 13...	4	0	260	250	10	.1	.0	.1	6	3	3
JUN 24...	--	--	--	--	--	--	--	--	--	--	--
AUG 05...	11	0	130	130	1	.0	.0	.0	4	4	0
SEP 18...	--	--	--	--	--	--	--	--	--	--	--

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE) (01146)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG) (01076)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN) (01091)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED (MG/L AS C) (00689)
NOV											
07...	3	2	1	0	0	0	150	140	8	13	4.8
DEC											
18...	--	--	--	0	--	--	--	--	--	--	--
FEB											
20...	1	0	1	1	1	0	50	20	30	5.8	.5
MAR											
19...	--	--	--	3	--	--	--	--	--	--	--
MAY											
13...	2	1	1	0	0	0	30	--	<3	3.0	1.8
JUN											
24...	--	--	--	0	--	--	--	--	--	--	--
AUG											
05...	1	0	1	1	1	0	40	--	<3	3.3	1.2
SEP											
18...	--	--	--	0	--	--	--	--	--	--	--

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

DATE TIME	NOV 7,79 0930	MAR 19,80 1015	MAY 13,80 1050	JUN 24,80 1120
TOTAL CELLS/ML	62000	3500	24000	160000
DIVERSITY: DIVISION	1.1	1.4	1.2	0.9
.CLASS	1.1	1.4	1.2	0.9
..ORDER	1.2	1.6	1.8	1.1
...FAMILY	2.9	2.3	2.5	2.1
....GENUS	3.2	2.3	3.2	2.4

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	--	-	72	2	--	-	--	-
...COELASTRACEAE								
....COELASTRUM	--	-	--	-	--	-	6300	4
...HYDRODICTYACEAE								
....PEDIASTRUM	--	-	--	-	--	-	5700	3
...MICRACTINIACEAE								
....GOLENKINIA	--	-	--	-	--	-	--	-
....MICRACTINIUM	--	-	--	-	--	-	3800	2
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	72	2	5400#	23	9500	6
....CHODATELLA	--	-	--	-	--	-	*	0
....DICTYOSPHAERIUM	--	-	--	-	3100	13	2500	2
....KIRCHNERIELLA	--	-	--	-	980	4	*	0
....OOCYSTIS	--	-	--	-	--	-	1900	1
....SELENASTRUM	--	-	--	-	--	-	1600	1
....TETRAEDRON	--	-	--	-	160	1	*	0
....TREUBARIA	--	-	--	-	--	-	--	-
....WESTELLA	--	-	--	-	--	-	--	-
...SCENEDESMACEAE								
....ACTINASTRUM	--	-	--	-	--	-	5100	3
....SCENEDESMUS	10000#	16	860#	25	2600	11	85000#	52
....TETRASTRUM	--	-	--	-	660	3	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	140	4	1600	7	5100	3
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	*	0	--	-	2800	12	*	0
....MELOSIRA	980	1	--	-	330	1	1300	1
....STEPHANODISCUS	620	1	--	-	--	-	--	-
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	*	0	--	-	--	-	--	-
....COCCONEIS	3400	5	--	-	--	-	--	-
...CYMBELLACEAE								
....CYMBELLA	620	1	--	-	--	-	--	-
....EPITHEMIA	*	0	--	-	--	-	--	-
....RHOPALODIA	620	1	--	-	--	-	--	-
...DIATOMACEAE								
....DIATOMA	1900	3	--	-	--	-	--	-
....OPEPHORA	2200	3	--	-	--	-	--	-
...FRAGILARIACEAE								
....FRAGILARIA	20000#	31	1500#	44	1800	8	--	-
....SYNEDRA	980	1	--	-	--	-	--	-
...GOMPHONEMATACEAE								
....GOMPHONEMA	980	1	--	-	160	1	--	-
...NAVICULACEAE								
....CALONEIS	*	0	--	-	--	-	--	-
....NAVICULA	5000	8	220	6	--	-	--	-
....PINNULARIA	620	1	--	-	--	-	--	-
...NITZSCHIACEAE								
....NITZSCHIA	7500	12	140	4	2600	11	1900	1
...SURIRELLACEAE								
....SURIRELLA	*	0	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOMONADACEAE								
....CRYPTOMONAS	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....AGMENELLUM	--	-	430	13	--	-	--	-
....ANACYSTIS	--	-	--	-	1500	6	32000#	19
....GOMPHOSPHAERIA	--	-	--	-	--	-	--	-
..HORMOGONALES								
...NOSTOCACEAE								
....ANABAENA	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE								
....OSCILLATORIA	5600	9	--	-	--	-	--	-
...RIVULARIACEAE								
....RAPHIDIOPSIS	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
      * - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

DATE	JUL [illegible]		AUG [illegible]		SEP [illegible]	
TIME	[illegible]		[illegible]		[illegible]	
TOTAL CELLS/ML	[illegible]		[illegible]		[illegible]	
DIVERSITY: DIVISION	[illegible]		[illegible]		[illegible]	
.CLASS	[illegible]		[illegible]		[illegible]	
..ORDER	[illegible]		[illegible]		[illegible]	
...FAMILY	[illegible]		[illegible]		[illegible]	
....GENUS	[illegible]		[illegible]		[illegible]	

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...CHARACIACEAE						
....SCHROEDERIA	*	0	--	-	--	-
...COELASTRACEAE						
....COELASTRUM	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
...HYDRODICTYACEAE						
....PEDIASTRUM	--	-	[illegible]	[illegible]	--	-
...MICRACTINIACEAE						
....GOLENKINIA	[illegible]	[illegible]	--	-	[illegible]	[illegible]
....MICRACTINIUM	--	-	--	-	--	-
...OOCYSTACEAE						
....ANKISTRODESMUS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
....CHODATELLA	*	0	--	-	[illegible]	[illegible]
....DICTYOSPHAERIUM	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
....KIRCHNERIELLA	--	-	--	-	--	-
....OOCYSTIS	[illegible]	[illegible]	[illegible]	[illegible]	--	-
....SELENASTRUM	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
....TETRAEDRON	--	-	--	-	--	-
....TREUBARIA	*	0	--	-	--	-
....WESTELLA	--	-	--	-	[illegible]	[illegible]
...SCENEDESMACEAE						
....ACTINASTRUM	[illegible]	[illegible]	--	-	[illegible]	[illegible]
....SCENEDESMUS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
....TETRASTRUM	[illegible]	[illegible]	[illegible]	[illegible]	--	-
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
CHRYSOPHYTA						
.BACILLARIOPHYCEAE						
..CENTRALES						
...COSCINODISCACEAE						
....CYCLOTELLA	*	0	[illegible]	[illegible]	[illegible]	[illegible]
....MELOSIRA	*	0	--	-	--	-
....STEPHANODISCUS	--	-	--	-	--	-
..PENNALES						
...ACHNANTHACEAE						
....ACHNANTHES	--	-	--	-	--	-
....COCCONEIS	--	-	--	-	--	-
...CYMBELLACEAE						
....CYMBELLA	--	-	--	-	--	-
....EPITHEMIA	--	-	--	-	--	-
....RHOPALODIA	--	-	--	-	--	-
...DIATOMACEAE						
....DIATOMA	--	-	--	-	--	-
....OPEPHORA	--	-	--	-	--	-
...FRAGILARIACEAE						
....FRAGILARIA	--	-	*	0	--	-
....SYNEDRA	--	-	--	-	*	0
...GOMPHONEMATACEAE						
....GOMPHONEMA	--	-	--	-	--	-
...NAVICULACEAE						
....CALONEIS	--	-	--	-	--	-
....NAVICULA	--	-	--	-	--	-
....PINNULARIA	--	-	--	-	--	-
...NITZSCHIACEAE						
....NITZSCHIA	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
...SURIRELLACEAE						
....SURIRELLA	--	-	--	-	*	0
CRYPTOPHYTA (CRYPTOMONADS)						
.CRYPTOPHYCEAE						
..CRYPTOMONADALES						
...CRYPTOMONADACEAE						
....CRYPTOMONAS	--	-	--	-	*	0
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..CHROOCOCCALES						
...CHROOCOCCACEAE						
....AGMENELLUM	[illegible]	[illegible]	[illegible]	[illegible]	--	-
....ANACYSTIS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
....GOMPHOSPHAERIA	--	-	[illegible]	[illegible]	--	-
..HORMOGONALES						
...NOSTOCACEAE						
....ANABAENA	[illegible]	[illegible]	--	-	--	-
...OSCILLATORIACEAE						
....OSCILLATORIA	--	-	--	-	--	-
...RIVULARIACEAE						
....RAPHIDIOPSIS	--	-	--	-	[illegible]	[illegible]

NOTE: # = DOMINANT ORGANISM, EQUAL TO OR GREATER THAN 15%
* = OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	LENGTH OF EXPO-SURE .(DAYS) (00022)	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS) (70950)	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2) (70958)	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M (00572)
OCT							
11...	1015	36	3587	2.23	.540	144	136
APR							
22...	1055	34	.00	.040	.000	.000	.000
JUN							
24...	1120	28	2667	.060	.000	1.26	1.10
JUL							
15...	1400	21	1087	.150	.010	.866	.709

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)
AUG					
11...	1555	238	8.1	30.0	7.9
11...	1655	231	8.5	31.0	7.8
11...	2000	233	8.4	29.5	7.5
11...	2100	224	8.4	28.0	6.9
11...	2200	222	8.4	26.5	6.8
11...	2400	223	8.3	25.0	6.7
12...	0200	220	8.2	24.0	6.9
12...	0300	216	8.2	24.0	7.1
12...	0400	219	8.2	23.0	7.2
12...	0500	226	8.2	23.0	7.3

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)
AUG					
12...	0600	220	8.1	22.0	7.0
12...	0640	227	8.1	22.0	7.3
12...	0910	231	8.2	21.0	7.7
12...	1000	226	8.2	20.0	8.3
12...	1100	235	8.2	20.5	8.8
12...	1155	227	8.2	21.5	8.2
12...	1330	235	8.2	23.0	8.6
12...	1600	232	8.2	24.0	8.2
12...	1655	224	8.4	25.0	8.5

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	19.0	13.5	4.0	3.0	.5	.5	3.0	2.0	.5	.0	1.5	1.0
2	20.0	12.0	5.0	2.0	.5	.5	3.0	3.0	.5	.0	1.5	.5
3	16.0	12.0	5.0	1.0	.5	.0	3.0	3.0	.5	.5	1.0	.5
4	16.0	9.0	5.5	3.0	.5	.0	3.0	3.0	.5	.5	1.5	1.0
5	16.0	10.0	5.0	1.0	.5	.0	3.0	3.0	1.0	.5	1.5	1.5
6	16.5	9.0	4.0	1.0	.5	.5	3.5	3.5	1.0	1.0	1.5	1.0
7	18.5	10.5	4.0	1.0	.5	.5	3.5	.0	1.5	1.0	1.5	1.0
8	15.5	11.5	2.0	1.0	1.0	1.0	1.5	.0	1.5	1.5	1.0	1.0
9	12.0	8.5	1.5	.5	1.0	.5	3.0	1.5	1.5	.5	1.0	1.0
10	14.0	8.5	1.0	.5	1.0	1.0	3.0	3.0	1.0	1.0	1.0	1.0
11	16.5	11.5	2.0	.5	1.0	1.0	3.5	3.0	1.0	1.0	1.0	1.0
12	14.0	9.0	3.5	.5	1.0	1.0	3.0	2.0	1.5	.5	1.0	1.0
13	12.0	5.5	4.0	.5	1.0	1.0	2.0	1.5	1.0	.5	1.0	1.0
14	14.0	6.5	5.0	2.0	1.0	.5	2.0	2.0	1.0	1.0	1.5	1.0
15	16.0	9.0	5.5	2.0	1.5	.5	2.0	2.0	1.0	1.0	1.5	.5
16	15.5	11.0	6.5	3.0	1.5	1.0	2.0	2.0	1.0	1.0	2.0	.5
17	15.5	9.0	6.5	3.0	1.0	.5	2.0	2.0	1.0	.5	4.5	1.0
18	15.0	10.0	7.0	3.0	.5	.5	2.0	2.0	.5	.0	8.0	2.0
19	14.0	9.0	6.5	3.5	1.0	.5	1.5	1.5	.5	.5	10.5	5.0
20	15.0	11.0	4.5	1.0	1.0	.5	1.5	1.5	.5	.5	9.0	5.5
21	12.0	6.0	1.0	.5	1.5	1.0	1.5	1.5	.5	.5	10.0	4.0
22	6.0	5.0	3.0	.0	1.5	1.0	2.0	1.5	.5	.5	9.5	4.0
23	9.5	3.5	1.5	.0	1.0	1.0	2.0	1.5	.5	.5	8.0	4.5
24	10.0	5.5	.5	.5	1.5	1.0	1.5	1.5	.5	.5	9.0	3.5
25	10.5	6.0	.5	.5	1.5	1.0	2.0	1.5	1.0	.5	6.5	3.5
26	13.0	6.0	.5	.5	2.0	1.5	1.5	1.5	1.0	.5	4.5	3.0
27	13.0	8.0	.5	.5	3.0	2.0	1.5	1.0	.5	.5	9.5	3.0
28	13.0	6.5	.5	.5	2.0	2.0	1.0	1.0	1.0	.5	6.0	3.5
29	10.0	6.0	.5	.5	2.0	2.0	1.0	.0	1.0	1.0	3.5	2.0
30	8.5	6.0	.5	.5	3.0	2.0	.5	.0	---	---	8.0	3.0
31	6.0	3.5	---	---	2.0	2.0	.5	.5	---	---	10.0	5.0
MONTH	20.0	3.5	7.0	.0	3.0	.0	3.5	.0	1.5	.0	10.5	.5
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.0	5.5	23.0	16.5	20.0	17.0	29.5	22.0	31.0	19.5	27.0	19.0
2	9.0	5.5	24.0	16.5	20.5	20.0	29.5	20.5	31.5	19.5	25.0	17.0
3	7.0	5.5	25.5	16.5	20.0	19.5	30.0	20.0	29.0	20.5	20.5	20.0
4	11.0	6.5	25.0	15.0	23.5	20.5	31.5	23.0	27.0	17.0	20.0	17.0
5	13.0	6.0	23.0	15.5	31.0	21.0	33.5	23.0	26.5	15.5	20.0	10.0
6	15.0	8.5	22.0	13.5	31.0	21.5	35.0	23.0	31.5	19.5	31.0	21.0
7	10.0	9.0	19.0	11.0	26.5	20.0	35.0	23.5	32.0	20.0	31.5	21.5
8	9.5	5.0	21.5	9.5	26.0	16.0	28.5	22.0	30.5	21.5	30.5	21.5
9	11.5	6.5	15.5	10.5	29.0	16.5	35.0	21.0	29.0	19.5	26.0	18.0
10	12.0	6.5	16.0	12.0	29.5	18.5	36.5	20.0	29.5	20.5	21.5	18.5
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	---	---	[illegible]	[illegible]	---	---	[illegible]	[illegible]	[illegible]	[illegible]	---	---
MONTH	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	1340	1400	5100	2600	2000	14000	901	900	2200
2	991	1400	3700	2120	2300	13000	890	450	1100
3	988	1800	4800	1800	2400	12000	1130	510	1600
4	1010	2300	6300	1720	2300	11000	1430	740	2900
5	1000	2300	6200	1720	1900	8800	1890	910	4600
6	994	2200	5900	1880	1400	7100	2210	1100	6600
7	984	2200	5800	2250	1300	7900	2490	1100	7400
8	987	2200	5900	2230	1100	6600	2170	1100	6400
9	1060	2200	6300	1670	1100	5000	2010	910	4900
10	1120	2100	6400	1450	1300	5900	2190	650	3800
11	1050	1400	4000	1620	1300	5700	2200	770	4700
12	1020	2300	6300	1600	1400	6000	1270	980	3400
13	1093	2400	7100	1540	1600	6700	1130	1100	3400
14	1140	1900	5800	1500	1800	7300	1320	1200	4300
15	1110	2500	7500	1540	1600	6700	1650	1000	4500
16	1110	3400	10000	1610	1200	5200	1350	860	3100
17	1160	3500	11000	1610	1100	4800	994	1200	3200
18	1130	3200	9800	1580	1300	5500	803	1600	3500
19	1330	2800	10000	1580	2200	9400	778	1300	2700
20	1230	2400	8000	1580	3300	14000	1060	740	2100
21	1180	2100	6700	1610	3300	14000	1850	750	3700
22	1520	1700	7000	1620	2900	8000	2110	890	5100
23	1590	1800	7700	920	2600	6500	2130	1200	6900
24	1390	2000	7500	1290	2300	8000	2090	1500	8500
25	1490	2100	8400	1490	1900	7600	1980	2000	10000
26	1490	2200	8800	1620	1500	6600	1930	2600	14000
27	1540	2100	8700	1700	2000	9200	1970	2100	11000
28	1510	2100	8600	1630	2100	9200	1880	1300	6600
29	1510	1800	7300	1070	1800	5200	1930	950	4700
30	1710	1400	6500	920	1400	3500	1910	800	4300
31	2350	1500	9500	---	---	---	1870	1100	5600
TOTAL	39120	---	232600	48480	---	261080	51130	---	150460

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	---	---	---	[illegible]	[illegible]	[illegible]
31	[illegible]	[illegible]	[illegible]	---	---	---	[illegible]	[illegible]	[illegible]
TOTAL	[illegible]	---	[illegible]	[illegible]	---	[illegible]	[illegible]	---	[illegible]

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	1990	1600	8600	1490	1500	6000	2090	1200	6800
2	2010	2000	11000	1520	1600	6600	1640	1000	4400
3	2540	1700	12000	1510	1800	7300	1640	1100	4900
4	2930	1200	9500	1450	2000	7800	1380	1600	6000
5	2730	1200	8800	1470	1800	7100	1340	1700	6200
6	2550	1500	10000	1480	1300	5200	1380	1700	6300
7	2540	1300	8900	1400	970	3700	1380	1800	6700
8	2450	1000	6600	1340	710	2600	1450	1900	7400
9	2440	850	5600	1280	890	3100	1420	2000	7700
10	2360	770	4900	1340	1300	4700	1270	1900	6500
11	2260	810	4900	1270	1400	4800	1200	1600	5200
12	2310	900	5600	1390	1300	4900	1140	1300	4000
13	2000	1200	8000	1600	1200	5200	1050	1200	3400
14	2010	1600	10000	1630	1900	8400	1130	1100	3400
15	2010	1700	11000	1590	1800	7700	1380	1050	3900
16	2350	1600	10000	1580	1200	5100	2230	830	5000
17	2260	1500	9200	1750	1300	6100	1400	740	2800
18	2000	1300	7200	1830	1700	8400	1780	790	3800
19	1920	1400	7300	1730	1700	7900	1490	720	2900
20	1720	1700	7900	1510	1700	6900	1390	720	2700
21	1850	1600	8000	1430	1800	6900	1330	700	2500
22	1930	1800	7500	1430	2100	8100	1270	670	2300
23	1920	1300	5300	1410	2000	7600	1370	680	2500
24	1720	1200	5600	1350	1800	6600	1370	670	2500
25	1920	1700	7200	1290	1900	6600	1210	810	2600
26	1560	2300	9700	1200	2300	7500	1180	900	2900
27	1530	2300	9500	1210	2100	6900	1080	1000	2900
28	1570	1800	7600	1190	1700	5500	1010	1000	2700
29	1550	1600	6600	1180	1500	4800	921	1000	2500
30	1670	1500	6000	2060	1600	8900	836	980	2200
31	---	---	---	2400	1400	9100	---	---	---
TOTAL	62910	---	240000	46310	---	198000	40717	---	125600

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE, WATER (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)
OCT							
11...	1145	1050	13.0	1060	3010	7	9
NOV							
07...	1140	1670	3.0	1310	5910	35	40
27...	1335	1680	.5	2200	9980	7	8
DEC							
18...	1445	806	.5	1780	3870	--	--
FEB							
20...	1400	1600	.5	861	3720	--	--
MAR							
19...	1105	2300	6.0	2520	15600	--	--
APR							
01...	1050	2150	6.0	1620	9400	--	--
22...	1255	1650	21.5	1370	6100	12	19
MAY							
13...	1210	1710	15.0	1370	6330	11	11
JUN							
03...	1235	1930	24.5	1050	5470	--	--
24...	1300	1220	24.5	669	2200	24	24
JUL							
15...	1515	536	32.0	244	353	--	--
AUG							
05...	1425	482	28.0	206	268	--	--
27...	1515	1700	23.5	696	3200	--	--
SEP							
18...	1240	887	17.5	262	627	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)
OCT						
11...	15	23	37	83	100	--
NOV						
07...	66	80	83	91	99	100
27...	10	17	36	81	96	100
DEC						
18...	--	9	25	82	98	100
FEB						
20...	--	8	12	73	99	100
MAR						
19...	--	20	32	73	92	98
APR						
01...	--	30	51	88	98	100
22...	29	38	58	89	98	100
MAY						
13...	19	23	62	88	97	100
JUN						
03...	--	25	63	81	98	100
24...	28	37	63	73	99	100
JUL						
15...	--	25	33	88	100	--
AUG						
05...	--	26	56	96	100	--
27...	--	33	65	92	99	100
SEP						
18...	--	25	60	73	100	--

06465500 NIOBRARA RIVER NEAR VERDEL, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	NUMBER OF SAM-PLING POINTS (00063)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)
OCT												
11...	1145	1050	5	0	3	35	93	98	99	99	100	--
NOV												
07...	1140	1670	5	--	2	21	98	100	--	--	--	--
27...	1335	1680	3	0	1	23	65	92	97	100	--	--
DEC												
18...	1445	806	4	0	3	39	85	99	100	--	--	--
FEB												
20...	1400	1600	5	0	3	40	86	97	98	99	100	100
MAR												
19...	1105	2300	5	--	0	19	58	90	97	100	--	--
APR												
01...	1050	2150	5	--	0	30	80	99	100	--	--	--
22...	1255	1450	5	--	0	27	92	100	--	--	--	--
MAY												
13...	1210	1710	5	--	0	27	89	98	99	100	--	--
JUN												
03...	1235	1930	5	0	3	40	92	99	99	100	--	--
24...	1300	1220	5	--	1	23	74	96	97	99	100	--
JUL												
15...	1515	536	5	--	0	36	87	97	98	100	--	--
AUG												
05...	1425	482	5	0	1	45	88	97	99	99	100	--
27...	1515	1700	5	0	2	48	94	99	100	--	--	--
SEP												
18...	1240	807	5	--	0	17	73	96	97	99	100	--

06465680 NORTH BRANCH VERDIGRE CREEK NEAR VERDIGRE, NE

LOCATION.--Lat 42°35'51", long 98°08'03", in SE1/4SE1/4 sec.4, T.30 N., R.7 W., Knox County, Hydrologic Unit 10150007, on right bank 15 ft (5 m) downstream from bridge on paved county road 5 mi (8 km) west of Verdigre.

DRAINAGE AREA.--137 mi² (355 km²).

PERIOD OF RECORD.--October 1979 to September 1980.

GAGE.--Water-stage recorder. Altitude of gage is 1,468 ft (447.4 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Minor diversions for irrigation above station.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 46 ft³/s (1.30 m³/s) June 15, gage height, 2.52 ft (0.768 m); maximum gage height, 3.69 ft (1.125 m), Feb. 18, backwater from ice; minimum daily discharge 2.5 ft³/s (0.071 m³/s) Jan. 6, 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	26	29	8.0	11	24	24	20	21	16	6.5	21
2	15	23	25	5.0	15	26	24	20	21	[illegible]	4.7	22
3	15	23	31	3.0	13	28	30	20	20	[illegible]	6.0	20
4	15	23	30	3.5	14	23	27	20	20	[illegible]	23	19
5	16	24	26	3.0	15	23	26	20	21	10	15	19
6	16	24	25	2.5	14	25	25	18	20	[illegible]	15	17
7	16	23	22	2.5	14	23	25	16	19	[illegible]	14	16
8	16	22	24	3.0	13	23	24	18	19	[illegible]	12	16
9	17	22	22	5.0	11	24	24	19	20	[illegible]	16	14
10	16	21	17	4.5	13	23	24	19	19	[illegible]	26	15
11	17	21	14	5.0	12	23	24	20	17	[illegible]	20	16
12	17	21	15	10	11	22	23	20	16	[illegible]	18	15
13	17	21	16	12	20	23	23	22	18	[illegible]	19	16
14	18	21	14	14	18	23	23	20	16	[illegible]	18	18
15	18	22	10	16	15	25	23	20	28	[illegible]	17	20
16	18	23	10	18	13	24	23	21	20	[illegible]	21	18
17	18	24	11	20	11	23	23	23	19	[illegible]	19	19
18	18	24	14	19	20	24	23	21	18	[illegible]	19	19
19	19	24	13	17	30	24	23	21	17	[illegible]	18	18
20	19	25	14	18	30	23	23	21	16	[illegible]	16	18
21	18	28	15	17	33	23	22	20	19	[illegible]	11	19
22	19	25	12	18	35	23	22	20	17	[illegible]	7.9	19
23	18	21	15	20	37	22	21	20	18	[illegible]	9.7	18
24	19	25	14	13	34	23	21	20	15	[illegible]	12	18
25	19	25	13	15	31	22	21	20	8.7	[illegible]	12	17
26	19	27	14	14	32	23	21	21	8.7	[illegible]	32	18
27	20	25	13	15	29	23	20	21	7.0	[illegible]	28	17
28	18	24	14	17	27	24	21	20	7.0	[illegible]	23	18
29	20	27	13	15	26	26	21	21	8.1	[illegible]	21	17
30	22	30	12	12	---	26	21	20	9.5	[illegible]	20	16
31	20	---	10	15	---	26	---	21	---	[illegible]	20	---
TOTAL	560	724	527	361.0	597	737	697	625	504.0	[illegible]	521.8	533
MEAN	18.1	24.1	17.0	11.6	20.6	23.8	23.2	20.2	16.8	[illegible]	16.8	17.8
MAX	22	28	31	20	37	28	30	23	28	[illegible]	32	22
MIN	15	21	10	2.5	11	22	20	16	7.0	[illegible]	4.7	14
AC-FT	1110	1440	1050	716	1180	1460	1380	1240	1000	[illegible]	1030	1060

WTR YR 1980 TOTAL 6412.2 MEAN 17.5 MAX 37 MIN 2.5 AC-FT 12720

06466500 BAZILE CREEK NEAR NIOBRARA, NE

LOCATION.--Lat 42°45'26", long 97°56'50", in SW1/4 sec.17, T.32 N., R.5 W., Knox County, Hydrologic Unit 10170101, on left bank 60 ft (18 m) shoreward and 20 ft (6 m) downstream from centerline of bridge on State Highway 12, 2.5 mi (4.0 km) upstream from mouth and 4.5 mi (7.2 km) east of Niobrara.

DRAINAGE AREA.--440 mi² (1,140 km²), approximately.

PERIOD OF RECORD.--May 1952 to current year. Records for October 1931 to September 1932, published in WSP 731, have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 1279: 1952. WSP 1729: 1958(M). See also PERIOD OF RECORD.

GAGE.--Water-stage recorder and nonrecording gage read once daily. Datum of gage is 1,210.81 ft (369.055 m) National Geodetic Vertical Datum of 1929. Prior to Dec. 16, 1952, nonrecording gage only, and Dec. 16, 1952, to June 16, 1957, water-stage recorder at downstream end of right pier, above 4.2 ft (1.28 m), at present site at datum 4 ft (1.2 m) higher. June 17, 1957, to Sept. 14, 1958, water-stage recorder above 8.2 ft (2.50 m) at present datum. Sept. 15, 1958 to Oct. 17, 1978, water-stage recorder at downstream end of left pier, above 4.3 ft (1.31 m), at present site and datum.

REMARKS.--Records good except those for winter period, which are poor. Minor diversions for irrigation above station.

AVERAGE DISCHARGE.--28 years, 81.1 ft³/s (2.297 m³/s), 58,760 acre-ft/yr (72.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 68,600 ft³/s (1,940 m³/s) June 16, 1957, gage height, 19.96 ft (6.084 m), present datum, from high point on surge, from rating curve extended above 6,500 ft³/s (184 m³/s) on basis of contracted-opening measurements at gage heights 15.36 ft (4.682 m) and 19.96 ft (6.084 m), present datum; maximum gage height, 20.25 ft (6.172 m) Feb. 19, 1971, backwater from ice; no flow July 24, 25, Aug. 30, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 19, 1951, reached a stage of 15.36 ft (4.682 m), present datum, from floodmarks, discharge, 24,400 ft³/s (691 m³/s) on basis of contracted-opening measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,040 ft³/s (29.5 m³/s) Aug. 11, gage height, 13.35 ft (4.069 m), no peak above base of 2,000 ft³/s (56.6 m³/s); maximum gage height, 14.22 ft (4.334 m) Feb. 27, backwater from ice; minimum daily discharge, 1.1 ft³/s (0.031 m³/s) July 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	82	37	17	23	50	77	41	46	19	13	45
2	22	70	41	20	25	66	68	42	44	19	13	48
3	22	52	46	19	27	84	129	40	39	19	9.2	42
4	24	45	54	22	29	100	261	38	35	19	10	25
5	25	48	48	20	28	94	223	37	36	17	19	20
6	26	51	43	22	27	90	157	37	37	16	10	18
7	25	50	41	22	26	116	117	36	41	14	12	17
8	26	48	36	18	24	125	92	37	39	11	10	17
9	27	46	39	18	22	165	88	35	37	8.9	19	15
10	29	48	32	24	24	160	88	36	35	8.0	266	16
11	28	53	27	23	23	190	78	36	38	5.8	679	17
12	29	51	24	24	22	220	70	38	32	5.0	88	16
13	30	46	27	31	25	200	64	42	32	4.4	42	17
14	30	44	28	33	28	180	58	41	33	1.5	30	20
15	29	44	26	35	27	157	58	44	43	3.5	26	20
16	28	43	28	36	25	140	57	45	30	6.1	29	18
17	29	42	23	30	33	110	56	56	33	3.7	30	18
18	31	43	31	29	37	92	56	56	32	3.2	25	17
19	30	43	30	28	39	89	56	52	30	4.7	20	17
20	32	44	32	28	40	89	52	51	30	8.0	22	17
21	32	42	27	25	41	77	51	45	30	4.9	19	23
22	28	40	23	26	43	60	50	43	31	4.1	19	27
23	28	35	22	25	45	66	45	43	33	2.0	18	25
24	28	41	22	29	50	61	48	42	29	1.1	17	21
25	28	56	23	25	50	50	48	38	28	4.1	16	21
26	25	72	25	28	44	57	44	51	28	4.7	28	21
27	28	48	25	26	48	57	43	42	29	13	31	18
28	25	52	23	25	48	67	43	55	22	4.8	31	20
29	25	43	23	27	48	69	43	52	22	4.9	22	21
30	42	47	21	26	---	80	42	53	28	4.5	88	21
31	56	---	18	27	---	84	---	58	---	4.0	44	---
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAX	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	679	[illegible]
MIN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.1	[illegible]	[illegible]
AC-FT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CAL YR 1979 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] AC-FT [illegible]
WTR YR 1980 TOTAL [illegible] MEAN [illegible] MAX 679 MIN 1.1 AC-FT [illegible]

06467000 LEWIS AND CLARK LAKE NEAR YANKTON, SD

LOCATION.--Lat 42°50'56", long 97°28'54", in SE1/4 sec.7, T.33 N., R.1 W., Cedar County, Nebraska, Hydrologic Unit 10170101, in powerhouse of Gavins Point Dam on Missouri River, 3.75 mi (6.03 km) southwest of Yankton, 13.6 mi (21.9 km) upstream from James River, 32.5 mi (52.3 km) downstream from Niobrara River, and at mi 811.0 (1,304.9 km).

DRAINAGE AREA.--279,500 mi^2 (723,900 km^2), approximately.

PERIOD OF RECORD.--July 1955 to current year (monthend contents only). Prior to October 1955, published as Gavins Point Reservoir near Yankton.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Dec. 9, 1955, recorder at temporary location on wall of intake structure unit 3.

REMARKS.--Reservoir is formed by earthfill dam; storage began in July 1955. Maximum capacity, 541,000 acre-ft (0.667 km^3) below elevation 1,210.0 ft (368.81 m), top of spillway gates. Normal maximum, 477,000 acre-ft (0.588 km^3) below elevation 1,208.0 ft (368.20 m). Inactive storage, 156,000 acre-ft (0.192 km^3) below elevation 1,195.0 ft (364.24 m). Dead storage, 18,000 acre-ft (22.2 hm^3) below elevation 1,180.0 ft (359.66 m), crest of spillway. Figures given herein represent elevations at powerhouse and total contents adjusted for wind effect.

The spillway consists of 14 taintor gates, each 40 ft (12 m) wide by 30 ft (9 m) high; spillway capacity, 280,000 ft^3/s (7,930 m^3/s) at pool elevation 1,210.0 ft (368.81 m). Crest of spillway is at elevation 1,180 ft (360 m). Normal releases are through 3 power units, installation completed in January 1957; maximum release through power units is 35,000 ft^3/s (991 m^3/s) at pool elevation 1,210.0 ft (368.81 m). Water is used for flood control, navigation, power, and incidental uses.

COOPERATION.--Elevations and contents furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 565,000 acre-ft (0.697 km^3) Apr. 1, 1960, elevation, 1,210.7 ft (369.02 m), affected by wind; minimum since initial filling, 61,950 acre-ft (76.4 hm^3) Apr. 23, 1956, elevation, 1,188.1 ft (362.13 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 488,000 acre-ft (0.602 km^3) Oct. 31, elevation, 1,209.17 ft (368.555 m); minimum, 357,000 acre-ft (0.440 km^3) May 9, 10, elevation, 1,204.46 ft (367.119 m).

MONTHEND ELEVATION AND CONTENTS AT 2400 HOURS, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	1,208.07	458,000	-
Oct. 31	1,209.17	488,000	+30,000
Nov. 30	1,208.10	455,000	-33,000
Dec. 31	1,208.31	463,000	+8,000
CAL YR 1979	-	-	+40,000
Jan. 31	1,207.94	452,000	-11,000
Feb. 29	1,205.11	375,000	-77,000
Mar. 31	1,205.61	388,000	+13,000
Apr. 30	1,204.69	363,000	-25,000
May 31	1,205.38	382,000	+19,000
June 30	1,205.67	390,000	+8,000
July 31	1,206.13	401,000	+11,000
Aug. 31	1,207.90	452,000	+51,000
Sept. 30	1,207.84	449,000	-3,000
WTR YR 1980	-	-	-9,000

NOTE.--Reservoir frozen over Dec. 17 to Mar. 21.

06467500 MISSOURI RIVER AT YANKTON, SD

LOCATION.--Lat 42°51'58", long 97°23'37", in SW1/4SW1/4 sec.18, T.93 N., R.55 W., Yankton County, Hydrologic Unit 10170101, near left bank in downstream end of left pier of Meridian Highway Bridge on U.S. Highway 81, 5.2 mi (8.4 km) downstream from Gavins Point Dam, 6.0 mi (9.7 km) upstream from James River, and at mi 805.8 (1,296.5 km).

DRAINAGE AREA.--279,500 mi² (723,900 km²), approximately.

PERIOD OF RECORD.--October 1930 to current year. Monthly discharge only for some periods, published in WSP 1309. Gage-height records collected at same site March 1873 to November 1886, March 1905 to May 1908 (fragmentary), August 1921 to date (except winter months prior to 1932), are contained in reports of the National Weather Service.

GAGE.--Water-stage recorder. Datum of gage is 1,139.68 ft (347.374 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 20, 1932, nonrecording gage, and Sept. 20, 1932, to Mar. 9, 1967, water-stage recorder at present site and at datum 20.0 ft (6.10 m) higher.

REMARKS.--Records fair Oct. 1 to Jan. 12 and good Jan. 13 to Sept. 30. Flow completely regulated by Lewis and Clark Lake 5.2 mi (8.4 km) upstream since July 1955 (see station 06467000). Many diversions for irrigation and water supply above station. Corps of Engineers gage-height telemeter at station. Several observations of water temperature and specific conductance were made during the year.

AVERAGE DISCHARGE.--50 years, 26,410 ft³/s (747.9 m³/s), 19,130,000 acre-ft/yr (23.6 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 480,000 ft³/s (13,600 m³/s) Apr. 13, 1952; maximum gage height, 35.5 ft (10.82 m) Apr. 13, 14, 1952 (present datum); minimum daily discharge, 2,700 ft³/s (76.5 m³/s) Nov. 15, 16, 1940.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 50.5 ft (15.39 m) Apr. 5, 1881 (ice jam), present datum .

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 41,600 ft³/s (1,180 m³/s) Nov. 30, gage height, 19.14 ft (5.834 m); minimum daily, 11,000 ft³/s (312 m³/s) Mar. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39700	32600	41300	20700	17400	14700	29700	29800	28600	31500	30200	34100
2	40000	32700	41500	20400	17400	14700	29800	29700	28600	31600	30200	33500
3	39000	33000	40200	20400	17400	14800	29500	29800	28000	31600	30200	33600
4	39000	32700	37500	20500	17400	14700	28700	30400	27800	31500	30000	33600
5	39100	32700	36000	20600	17300	14900	28700	30500	26600	31000	29900	33700
6	39000	33100	31700	20400	17300	15000	28300	30400	27600	31800	30000	33900
7	39000	33900	29100	20400	17400	15000	27500	30300	26300	32300	30200	33900
8	39000	33900	27100	20400	17200	15000	27400	30200	25100	32700	30000	34200
9	39000	34000	25900	20500	17200	15000	27800	30200	24200	33200	30000	35000
10	38000	35600	25600	20300	17100	15000	28500	30200	27300	33700	30100	35900
11	39200	35500	26200	20200	17400	15200	28500	30200	27800	34000	30400	35000
12	39700	34300	26400	20200	17200	11800	28800	29900	28400	34000	33800	35800
13	39700	35600	26000	20200	16900	11000	29000	29000	28500	35600	33400	35900
14	39500	36000	26000	20200	16900	15000	28800	29800	28500	37100	30000	36100
15	39600	37100	25600	20200	16800	15100	28800	30100	28500	38000	30300	36100
16	39400	36500	25600	20200	17100	14900	29000	30000	28500	37000	35700	36000
17	39300	36100	25600	20300	17000	15000	29400	29800	28500	38000	33900	36200
18	39000	35800	25600	20200	16700	16100	29500	29700	28500	37800	32200	37200
19	39000	[illegible]	22900	19300	16400	19000	[illegible]	[illegible]	28700	38000	[illegible]	[illegible]
20	39000	37000	21400	19300	16500	22100	29500	29700	29200	37800	32700	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	---	[illegible]	[illegible]	---	[illegible]	---	[illegible]	---	[illegible]	[illegible]	---
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAX	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MIN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
AC-FT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CAL YR 1979 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] AC-FT [illegible]
WTR YR 1980 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] AC-FT [illegible]

06478518 BOW CREEK NEAR ST. JAMES, NE

LOCATION.--Lat 42°43'48", long 97°08'53", in SE1/4SW1/4 sec.24, T.32 N., R.2 E., Cedar County, Hydrologic Unit 10170101, on right downstream end of bridge on State Highway 12, 0.25 mi (0.40 km) west of intersection of St. James road and State Highway 12, 0.7 mi (1.1 km) south of St. James.

DRAINAGE AREA.--304 mi² (787 km²).

PERIOD OF RECORD.--October 1978 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,190 ft (363 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,840 ft³/s (137 m³/s) Aug. 19, 1979, gage height, 9.38 ft (2.859 m); minimum daily, 7.4 ft³/s (0.21 m³/s) Jan. 15, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 833 ft³/s (23.6 m³/s) Aug. 11, gage height, 5.12 ft (1.561 m); maximum gage height, 6.65 ft (2.027 m) Feb. 21, backwater from ice; minimum daily discharge, 16 ft³/s (0.45 m³/s) July 24, 31, Aug. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	62	28	64	35	45	48	54	49	25	16	28
2	40	51	34	63	45	47	49	53	46	25	17	26
3	42	49	50	62	42	68	71	53	46	24	17	26
4	44	46	74	62	48	54	83	53	42	25	23	25
5	43	51	72	55	54	50	90	52	45	25	20	24
6	37	56	70	53	47	56	74	50	46	25	19	24
7	38	53	66	48	45	60	70	48	56	24	17	24
8	42	52	60	40	43	60	68	49	52	23	17	24
9	41	49	70	38	36	67	77	48	46	23	50	22
10	43	46	72	50	40	66	67	48	43	23	393	22
11	45	45	60	45	37	58	65	46	41	22	446	21
12	45	44	56	47	35	57	65	46	41	20	83	21
13	45	44	64	70	38	55	64	49	42	21	45	20
14	46	44	66	66	42	55	65	46	76	21	38	22
15	39	44	68	62	40	60	63	46	117	20	35	22
16	37	43	65	60	39	63	64	48	68	20	37	21
17	37	40	58	58	38	57	65	54	51	19	36	21
18	40	39	84	60	52	55	67	53	46	20	33	22
19	40	37	70	54	58	54	64	48	356	19	32	22
20	40	38	68	78	80	53	65	46	76	20	32	28
21	41	37	66	58	130	54	65	47	38	19	29	28
22	43	39	68	56	180	69	63	47	36	18	28	26
23	39	40	64	50	120	69	60	46	36	17	27	22
24	38	39	66	54	70	67	58	44	32	16	27	22
25	37	39	65	45	56	65	58	44	31	18	27	23
26	40	40	66	38	70	64	57	47	33	44	32	22
27	42	36	65	37	64	67	56	63	35	24	33	22
28	41	28	64	39	62	68	56	54	29	20	31	22
29	41	25	64	39	56	51	56	168	26	18	29	22
30	37	30	62	35	---	52	58	168	25	17	27	23
31	130	---	63	33	---	54	---	52	---	16	29	---
TOTAL	1390	1281	1940	1592	1704	1674	1923	1772	1698	673	1725	696
MEAN	44.8	42.7	62.6	51.4	58.8	54.0	64.1	57.2	56.6	21.7	55.6	23.2
MAX	120	63	84	78	180	68	90	168	356	44	446	28
MIN	37	25	28	33	35	45	48	44	25	16	16	20
AC-FT	2760	2540	3850	3160	3380	3320	3810	3510	3370	1330	3420	1380

CAL YR 1979 TOTAL 25264.2 MEAN 69.2 MAX 2030 MIN 7.4 AC-FT 50110

WTR YR 1980 TOTAL 18072.0 MEAN 49.4 MAX 446 MIN 16 AC-FT 35850

06486000 MISSOURI RIVER AT SIOUX CITY, IA
(National stream-quality accounting network station)

LOCATION.--Lat 42°29'10", long 96°24'47", in NW1/4SE1/4 sec.16, T.29 N., R.9 E., sixth principal meridian, Dakota County, Nebraska, Hydrologic Unit 10230001, on right bank on upstream side of bridge on U.S. Highway 77 at South Sioux City, NE, 2.0 mi (3.2 km) downstream from Big Sioux River, and at mi 732.3 (1,178.3 km).

DRAINAGE AREA.--314,600 mi² (814,800 km²), approximately.

PERIOD OF RECORD.--October 1897 to current year in reports of Geological Survey. Prior to October 1928 and October 1931 to September 1938, monthly discharges only published in WSP 1310. January 1879 to December 1890 (monthly discharge only) in House Document 238, 73rd Congress, 2d session, Missouri River. Gage-height records collected in this vicinity September 1878 to December 1899 are contained in reports of Missouri River Commission and since July 1889 are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 716: 1929-30. WSP 876: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,056.98 ft (322.168 m) National Geodetic Vertical Datum of 1929. Sept. 2, 1878, to Dec. 31, 1905, nonrecording gages at various locations within 1.7 mi (2.7 km) of present site and at various datums. Jan. 1, 1906, to Feb. 14, 1935, nonrecording gage, and Feb. 15, 1935 to Sept. 30, 1969, water-stage recorder at present site at datum 19.98 ft (6.090 m) higher, and Oct. 1, 1969 to Sept. 30, 1970 at datum 20.00 ft (6.096 m) higher.

REMARKS.--Records good except those for Jan. 28 to Feb. 4, which are poor. Flow regulated by upstream main-stem reservoirs. National Weather Service gage height telemeter at station.

AVERAGE DISCHARGE.--83 years, 32,070 ft³/s (908.2 m³/s), 23,230,000 acre-ft/yr (28.6 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 441,000 ft³/s (12,500 m³/s) Apr. 14, 1952, gage height, 24.28 ft (7.401 m), datum then in use; minimum, 2,500 ft³/s (70.8 m³/s) Dec. 29, 1941; minimum gage height, 9.00 ft (2.743 m), Jan. 8, 1980, based on gage readings at site 14 mi (23 km) downstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 44,000 ft³/s (1,250 m³/s) Oct. 31, gage height, 20.53 ft (6.258 m); maximum gage height, 20.56 ft (6.267 m) Aug. 10; minimum daily discharge, 13,800 ft³/s (391 m³/s) Jan. 8; minimum gage height, 9.00 ft (2.743 m), Jan. 8, based on gage readings at site 14 mi (23 km) downstream.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39700	39900	39800	24100	17000	15900	33100	32300	32800	32400	27300	36900
2	39800	37800	40000	24100	18000	17700	32300	32300	33300	32900	30100	36500
3	40000	38500	41200	23800	18500	18900	33200	32100	33300	33300	30500	35400
4	40100	38900	40400	23200	19000	19700	33000	32200	31200	33200	39000	35400
5	39900	40000	38600	23700	19900	17000	32500	32800	30100	33300	38500	35100
6	39600	41600	35000	23500	20000	16000	33000	32400	29900	33200	38200	36000
7	39600	40800	33800	17200	20100	18500	32600	32500	32100	32800	38600	36600
8	39700	40100	30700	13800	19900	18500	31300	32600	32600	32900	38500	36200
9	39800	39300	28300	20600	19700	18600	30700	32700	31300	33300	39700	36200
10	39700	38600	27000	20000	19000	19200	30600	32700	31200	33100	41600	35200
11	39600	39100	27100	21300	19600	16000	31300	32600	31000	36600	42000	36000
12	39600	39100	25900	19600	18600	17800	32200	33000	31100	34700	39900	36600
13	39600	38900	26600	20900	19000	16200	32800	32700	31600	34500	36000	36600
14	39300	39900	26900	25100	20500	16100	31500	32200	31600	33700	30700	36000
15	39200	39000	26700	26300	19900	17500	33000	31700	32000	33000	36100	36000
16	39200	40000	29900	29200	18700	18700	32700	31500	32100	38700	38000	38700
17	39300	39700	29700	23700	18600	18800	32600	31700	32300	38200	38000	36500
18	39500	39900	27100	23000	18600	18900	32700	32000	32800	38000	36000	36300
19	40100	40100	27900	23200	20600	23700	33000	32200	31500	31600	35800	36700
20	39000	40000	29200	22900	23300	22500	33000	32600	32000	34100	35200	37900
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	---	[illegible]	[illegible]	---	[illegible]	---	[illegible]	---	[illegible]	[illegible]	---
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAX	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MIN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
AC-FT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CAL YR 1979 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] AC-FT [illegible]
WTR YR 1980 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] AC-FT [illegible]

06601000 OMAHA CREEK AT HOMER, NE

LOCATION.--Lat 42°19'29", long 96°29'43", in SW1/4SE1/4 sec.11, T.27 N., R.8 E., Dakota County, Hydrologic Unit 10230001, on left bank 80 ft (24 m) downstream from bridge on main street of Homer.

DRAINAGE AREA.--168 mi² (435 km²).

PERIOD OF RECORD.--October 1945 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WDR NE-72: Drainage area. WDR NE-75-1: 1971-73.

GAGE.--Water-stage recorder. Datum of gage is 1,082.45 ft (329.931 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 4, 1952, at bridge 0.5 mi (0.8 km) downstream at datum 8.03 ft (2.448 m) lower. Aug. 4, 1952, to Nov. 3, 1966, at site 80 ft (24 m) upstream at present datum.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--35 years, 33.6 ft³/s (0.952 m³/s), 24,340 acre-ft/yr (30.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,100 ft³/s (513 m³/s) Feb. 19, 1971, gage height, 26.47 ft (8.068 m), from floodmark, from rating curve extended above 3,700 ft³/s (105 m³/s) on basis of slope-area measurements at gage heights 16.38 ft (4.993 m) and 23.62 ft (7.199 m); minimum daily, 0.1 ft³/s (0.003 m³/s) Sept. 16, 18, 19, 1940, Sept. 9, 13, 14, 1955, Oct. 7, 8, 1957.

EXTREMES OUTSIDE PERIOD OF RECORD.--Greatest flood known occurred June 4, 1940, stage, about 32.5 ft (9.91 m), present site and datum, discharge estimated as 51,000 ft³/s (1,440 m³/s) at site 2.5 miles upstream from present site.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,050 ft³/s (58.1 m³/s) May 30 at 0815, gage height, 12.09 ft (3.685 m), no other peak above base of 1,000 ft³/s (28.3 m³/s); minimum daily, 2.4 ft³/s (0.068 m³/s) Sept. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	37	15	13	8.0	16	23	20	65	10	6.6	11
2	6.0	21	12	12	12	19	33	20	35	9.8	6.5	6.3
3	6.9	17	15	12	13	20	73	20	29	9.8	6.5	5.6
4	5.0	15	17	12	12	22	78	19	22	11	6.0	5.0
5	6.6	17	20	13	14	17	60	18	21	12	7.1	6.3
6	6.0	22	19	12	13	18	66	16	20	12	6.2	5.5
7	6.7	21	15	9.6	12	20	41	16	18	12	6.6	5.6
8	5.2	20	13	6.2	13	20	37	14	16	6.0	6.2	5.5
9	5.3	15	16	8.6	11	21	27	15	16	6.0	6.5	5.0
10	6.0	16	18	13	12	23	26	16	16	7.9	15	5.2
11	5.1	17	16	15	16	18	33	16	13	6.6	10	5.3
12	5.6	16	16	13	12	16	30	13	16	7.6	7.6	5.3
13	6.9	16	17	15	13	16	29	17	16	6.2	6.0	5.1
14	5.2	15	16	22	14	25	29	17	17	6.3	6.5	5.2
15	5.6	15	17	20	13	66	29	15	23	7.9	6.5	5.2
16	5.7	15	15	19	12	43	27	18	18	7.6	16	2.8
17	5.7	15	11	16	11	20	27	20	13	6.7	16	2.9
18	6.0	15	13	16	12	17	27	26	14	7.6	7.5	3.0
19	6.7	15	20	20	15	66	26	17	15	7.6	6.2	2.7
20	6.3	15	27	16	20	15	26	17	12	8.0	13	15
21	6.2	62	25	15	76	16	25	16	12	7.6	8.6	16
22	7.6	67	23	17	220	13	23	15	13	6.9	6.0	11
23	8.6	29	26	13	110	16	22	16	20	7.0	7.7	3.1
24	8.0	21	21	15	60	13	18	13	15	6.3	3.6	2.6
25	6.1	21	19	12	35	13	20	12	12	5.9	3.9	2.5
26	7.6	23	10	13	28	15	21	11	16	5.6	6.1	2.5
27	8.2	20	10	10	26	17	27	76	11	6.3	5.6	2.4
28	6.0	13	13	9.0	25	20	20	26	10	5.6	6.6	2.6
29	5.3	12	10	9.6	21	26	26	17	9.0	5.5	6.0	2.6
30	11	14	13	8.6	---	25	26	[illegible]	16	6.6	220	2.7
31	220	---	16	7.6	---	22	---	66	---	6.1	69	---
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAX	220	67	27	22	220	66	78	[illegible]	65	12	220	16
MIN	5.0	12	10	7.6	8.0	13	18	11	9.0	5.5	3.6	2.4
AC-FT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CAL YR 1979 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] AC-FT [illegible]
WTR YR 1980 TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN 2.4 AC-FT [illegible]

BLACKBIRD CREEK BASIN

[illegible] BLACKBIRD CREEK NEAR MACY, NE

LOCATION.--Lat [illegible], long [illegible] in [illegible] sec. [illegible], T. [illegible] N., R. [illegible] E., [illegible] County, Hydrologic Unit [illegible], on left bank [illegible] downstream from bridge on county road [illegible] and [illegible] south of the Omaha Indian tribal farm.

DRAINAGE AREA.--[illegible] mi² ([illegible] km²).

PERIOD OF RECORD.--October [illegible] to September [illegible] (discontinued).

GAGE.--Water-stage recorder. Datum of gage is [illegible] ft ([illegible] m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period or no gage-height record, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, [illegible] ft³/s ([illegible] m³/s) [illegible], gage height, [illegible] ft ([illegible] m); minimum daily, [illegible] ft³/s ([illegible] m³/s) Sept. [illegible].

EXTREMES FOR CURRENT YEAR.--Maximum discharge, [illegible] ft³/s ([illegible] m³/s) [illegible], gage height, [illegible] ft ([illegible] m); minimum daily, [illegible] ft³/s ([illegible] m³/s) Sept. [illegible].

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER [illegible] TO SEPTEMBER [illegible]
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MEAN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAX	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MIN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
AC-FT	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CAL YR [illegible] TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] AC-FT [illegible]
WTR YR [illegible] TOTAL [illegible] MEAN [illegible] MAX [illegible] MIN [illegible] AC-FT [illegible]

06608000 TEKAMAH CREEK AT TEKAMAH, NE

LOCATION.--Lat 41°46'30", long 96°13'10", in SE1/4 sec.19, T.21 N., R.11 E., Burt County, Hydrologic Unit 10230001, on left bank 30 ft (9 m) upstream from bridge 1 block east of U.S. Highway 73 in Tekamah.

DRAINAGE AREA.--23.0 mi² (59.6 km²).

PERIOD OF RECORD.--July 1949 to current year.

REVISED RECORDS.--WSP 1630: Drainage area.

GAGE.--Water-stage recorder and crest-stage indicator. Datum of gage is 1,032.26 ft (314.633 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 15, 1949, nonrecording gage at site 30 ft (9 m) downstream at present datum.

REMARKS.--Records fair except those for winter period, which are poor.

AVERAGE DISCHARGE.--31 years, 6.42 ft³/s (0.182 m³/s), 4,650 acre-ft/yr (5.73 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,180 ft³/s (175 m³/s) June 5, 1963, gage height, 16.62 ft (5.066 m); no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 331 ft³/s (9.37 m³/s) Oct. 31, gage height, 6.24 ft (1.902 m); no peak above base of 400 ft³/s (11.3 m³/s); maximum gage height, 6.3 ft (1.92 m) sometime during period Mar. 1-10, from floodmark, backwater from ice; minimum daily discharge, 0.07 ft³/s (0.002 m³/s) Aug. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	11	2.0	2.3	2.3	8.0	2.9	4.3	2.1	.58	.28	1.4
2	1.2	5.3	1.9	1.9	3.4	12	3.1	4.1	2.5	.58	.24	.43
3	1.4	4.5	2.3	1.8	4.0	18	9.1	3.9	2.1	.58	.18	.26
4	1.1	4.5	2.7	1.7	3.7	25	7.2	3.9	2.8	1.5	1.1	.45
5	1.5	7.2	3.2	1.5	4.5	20	6.2	3.7	1.6	3.6	.32	.33
6	1.2	6.6	2.5	1.5	4.0	21	4.5	3.4	2.5	.79	.18	.21
7	1.1	3.7	2.4	1.2	3.0	29	3.6	3.1	1.2	.44	.21	.38
8	1.0	3.3	1.8	1.1	3.0	35	3.4	3.5	.58	.40	.14	.26
9	.99	4.2	1.2	1.0	2.5	60	5.5	3.4	.71	.43	.17	.20
10	1.1	5.6	1.1	1.6	2.6	100	4.3	3.3	.47	.35	.52	.15
11	.97	5.6	.90	2.5	2.7	11	4.8	3.0	.55	.30	1.1	.23
12	1.5	4.1	.50	1.8	2.0	4.0	4.7	2.8	.54	.30	.27	.24
13	.86	4.1	.70	2.7	2.1	3.0	4.7	1.3	1.1	.26	.21	.17
14	.99	3.7	.90	3.5	2.4	8.4	4.5	1.1	.72	.25	.27	.21
15	1.5	3.7	1.2	3.3	2.3	15	4.4	.91	6.3	.64	.28	.23
16	1.5	3.7	1.4	3.5	2.0	10	4.4	1.8	1.3	.46	5.2	.19
17	1.1	3.3	1.0	3.2	1.6	5.7	4.4	3.7	1.0	.37	.47	.24
18	1.5	3.3	1.8	3.2	2.2	4.8	4.3	2.5	.70	.27	.23	.21
19	1.9	3.5	3.5	3.7	2.4	5.7	4.2	1.9	1.1	.39	.43	.18
20	2.8	3.2	3.7	3.0	2.5	4.1	3.9	1.8	1.0	.37	.23	.18
21	1.7	5.5	3.3	3.2	35	3.2	3.2	1.5	.90	.33	.18	.18
22	5.1	5.1	3.0	3.4	60	2.9	2.0	1.1	.80	.24	.13	.26
23	3.3	3.7	2.8	3.0	25	2.9	1.4	.65	1.4	.24	.18	.14
24	2.2	3.8	2.6	4.0	20	2.3	2.9	.69	1.2	.24	.09	.17
25	2.1	3.9	2.5	4.4	15	1.0	2.8	.52	1.2	.24	.07	.17
26	2.4	4.0	3.0	3.7	10	1.3	2.9	.67	.88	.32	.08	.22
27	1.8	2.3	3.0	3.4	11	1.4	3.0	3.0	.79	.28	.12	.18
28	1.9	1.7	2.8	3.1	10	1.8	2.9	.99	.79	.27	.27	.14
29	3.2	1.5	2.6	3.0	7.0	5.5	3.3	1.3	.72	.27	.30	.14
30	49	1.6	2.7	2.9	---	4.2	3.9	3.8	.64	.27	.30	.16
31	81	---	2.6	2.0	---	2.9	---	1.3	---	.24	16	---
TOTAL	180.41	127.2	67.60	82.1	248.2	429.1	122.4	72.93	40.19	15.80	29.75	7.91
MEAN	5.82	4.24	2.18	2.65	8.56	13.8	4.08	2.35	1.34	.51	.96	.26
MAX	81	11	3.7	4.4	60	100	9.1	4.3	6.3	3.6	16	1.4
MIN	.86	1.5	.50	1.0	1.6	1.0	1.4	.52	.47	.24	.07	.14
AC-FT	358	252	134	163	492	851	243	145	80	31	59	16

CAL YR 1979 TOTAL 3383.44 MEAN 9.27 MAX 350 MIN .30 AC-FT 6710
WTR YR 1980 TOTAL 1423.59 MEAN 3.89 MAX 100 MIN .07 AC-FT 2820

06610000 MISSOURI RIVER AT OMAHA, NE
(National stream-quality accounting network station)

LOCATION.--Lat 41°15'32", long 95°55'20", in SE1/4NW1/4 sec.23, T.15 N., R.13 E., Douglas County, Hydrologic Unit 10230006, on right bank on left side of concrete floodwall, at foot of Douglas Street, 275 ft (84 m) downstream from Interstate 480 Highway bridge in Omaha, and at mi 615.9 (991.0 km).

DRAINAGE AREA.--322,800 mi² (836,100 km²), approximately.

PERIOD OF RECORD.--September 1928 to current year. April 1872 to December 1899 (gage heights only) in reports of the Missouri River Commission and since January 1875 (gage heights only) in reports of the National Weather Service.

REVISED RECORDS.--WSP 761: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 958.24 ft (292.072 m) National Geodetic Vertical Datum of 1929. See WSP 1730 for history of changes prior to Sept. 30, 1936.

REMARKS.--Records good except those for Jan. 26 to Feb. 5, which are poor. Flow regulated by upstream main-stem reservoirs. National Weather Service gage-height telemeter at station.

AVERAGE DISCHARGE.--52 years, 29,830 ft³/s (844.8 m³/s), 21,610,000 acre-ft/yr (26.6 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 396,000 ft³/s (11,200 m³/s) Apr. 18, 1952, gage height, 30.20 ft (9.205 m); minimum, about 2,200 ft³/s (62.3 m³/s) Jan. 6, 1937; minimum gage height observed, -2.77 ft (-0.844 m) Jan 10, 1957, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 54,100 ft³/s (1,530 m³/s) Nov. 1, gage height, 9.07 ft (2.765 m); maximum gage height, 10.38 ft (3.164 m) June 15; minimum daily discharge, 17,700 ft³/s (501 m³/s) Mar. 15; minimum gage height, 2.00 ft (0.610 m) Jan. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN.	JUL	AUG	SEP
1	42500	52800	43800	26900	19000	23100	35600	35600	46900	33600	37700	39700
2	42500	48000	43800	26900	19500	20200	35900	35300	39000	33800	37800	38600
3	42400	45700	43700	27000	20500	19000	36900	34700	36200	35200	38700	38100
4	41800	45700	44500	26900	21000	21600	37500	34200	39500	34900	39000	36200
5	41400	47100	43000	26800	21500	23800	37800	33800	39600	36100	39200	37600
6	41900	50100	40200	26600	22400	23600	35800	33900	36900	34900	39200	37400
7	42200	51500	38700	26600	22300	20200	35600	34300	39800	34200	38300	36600
8	42400	50800	36700	23200	22600	21600	37500	34000	37400	33300	38200	36300
9	41900	48500	33500	20000	22500	23100	37700	34000	38400	32900	38600	36300
10	41500	46900	32300	18300	22400	26100	37200	34300	37000	33500	39400	36500
11	41600	44900	32400	22300	21600	26200	35500	34400	35600	33800	45000	36900
12	41300	45700	32500	23800	21200	24900	35400	34700	36000	34100	40800	38000
13	40100	44400	32000	23700	20800	22100	35400	34700	36500	34500	38800	37900
14	40900	44300	31200	22600	19500	20400	35600	34700	36800	34500	36000	37300
15	40900	44300	31400	28300	21100	17700	35400	35000	47000	34600	34600	37000
16	40400	44400	31200	30500	22800	19200	34600	34500	38800	36200	36400	37500
17	39600	44200	29100	30500	21300	22500	33900	34600	36900	36100	42200	37200
18	40600	43800	28000	28400	19500	22400	34100	34900	35600	39300	42100	36100
19	42200	44200	28900	26700	19400	21500	34000	35000	35900	38800	38300	36300
20	42900	45500	31600	25900	21200	21600	34600	34600	34400	38900	35500	37100
21	42900	47100	29100	25700	24000	24400	35000	33800	33600	38600	35400	38500
22	42800	48400	27400	25700	26500	27700	34900	33600	34100	38800	36000	41000
23	42700	49500	27300	26000	28700	31100	34700	34200	34600	38800	35600	40200
24	42800	47600	27700	25700	30300	33700	34300	34600	34200	38100	35200	38100
25	41400	46500	28000	25600	28600	35300	34600	34400	33700	37600	34900	36300
26	41300	46600	27200	26000	25500	35200	35000	34200	33300	38400	35100	35900
27	41900	46100	27000	25000	22500	35600	34900	33900	33800	38700	35300	36200
28	42400	46300	26900	21000	21700	34400	34700	35700	33900	38000	36000	36700
29	41900	46500	26800	20000	23900	33700	34600	35500	34300	37600	37600	38400
30	44000	44200	26900	19500	---	33900	34900	33500	34100	37700	37200	39300
31	50200	---	26900	19500	---	34600	---	42000	---	37600	39000	---
TOTAL	1305300	1401600	1009700	771600	653800	800400	1063600	1076600	1103800	1125100	1173100	1125200
MEAN	42110	46720	32570	24850	22540	25820	35450	34730	36790	36290	37840	37510
MAX	50200	52800	44500	30500	30300	35600	37800	42000	47000	39300	45000	41000
MIN	39600	43800	26800	18300	19000	17700	33900	33500	33300	32900	34600	35900
AC-FT	2589000	2780000	2003000	1530000	1297000	1588000	2110000	2135000	2189000	2232000	2327000	2232000

CAL YR 1979 TOTAL 14795800 MEAN 40540 MAX 82800 MIN 18500 AC-FT 29350000
WTR YR 1980 TOTAL 12609800 MEAN 34450 MAX 52800 MIN 17700 AC-FT 25010000

06610795 PAPILLION CREEK AT FORT CROOK, NE

LOCATION.--Lat 41°07'06", long 95°55'20", in NW1/4NE1/4 sec.10, T.13 N., R.13 E., Sarpy County, Hydrologic Unit 10230006, at bridge on Capehart Road, 0.6 mi (1.0 km) west of Offut Air Base at Fort Crook.

PERIOD OF RECORD.--October 1978 to September 1980 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT										
15...	1050	60	750	8.2	9.0	7	12.4	8.0	660	340
29...	1315	30	793	7.9	12.0	15	10.0	7.2	K10000	1400
NOV										
14...	1315	49	780	8.0	6.0	10	11.5	8.0	770	500
DEC										
19...	1110	79	790	8.0	.0	9	13.2	5.0	1400	2800
JAN										
15...	1300	42	710	8.2	.5	8	14.5	2.4	400	460
FEB										
21...	1055	700	665	6.8	3.0	600	10.8	25	K10000	90000
MAR										
10...	1230	350	295	7.6	1.0	360	11.6	10	21000	K200000
APR										
09...	1035	85	650	7.9	6.0	50	9.6	11	7300	3300
MAY										
07...	1045	50	749	7.5	17.0	15	8.8	12	93	K548
JUN										
10...	1340	140	630	7.7	24.5	150	7.3	4.0	K9400	K7000
JUL										
09...	1320	63	618	8.6	32.0	10	18.0	9.4	1500	220
AUG										
12...	1115	70	405	7.7	23.0	420	6.0	15	K230000	K180000
SEP										
10...	1230	50	710	8.1	23.0	5	12.5	4.3	1200	80

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT										
15...	36	435	.59	70.5	1.6	.20	2.9	3.1	4.7	.460
29...	41	483	.66	39.1	2.0	.77	.93	1.7	3.7	.620
NOV										
14...	33	472	.64	62.4	3.4	.63	.67	1.3	4.7	.520
DEC										
19...	98	619	.84	132	2.8	.36	.74	1.1	3.9	.400
JAN										
15...	32	421	.57	47.7	2.4	.40	.47	.87	3.3	.460
FEB										
21...	120	371	.50	701	2.3	1.7	8.3	10	12	1.500
MAR										
10...	15	223	.30	211	--	--	--	--	--	--
APR										
09...	29	406	.55	93.2	2.5	.47	1.3	1.8	4.3	.450
MAY										
07...	35	442	.60	59.7	1.1	.52	1.4	1.9	3.0	.410
JUN										
10...	23	410	.56	155	4.3	.35	2.2	2.5	6.8	.570
JUL										
09...	26	377	.51	64.1	1.1	.06	1.5	1.6	2.7	.330
AUG										
12...	19	236	.32	44.6	--	--	--	--	--	--
SEP										
10...	43	442	.60	59.7	1.0	.03	.97	1.0	2.0	.300

06610795 PAPILLION CREEK AT FORT CROOK, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLOR (PLAT-INUM COBALT UNITS) (00080)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
NOV 14...	1315	5	350	32	98	26	38	.9	6.9	320	54
FEB 21...	1055	120	110	24	31	8.3	78	3.2	11	88	30
MAY 07...	1045	5	340	140	90	28	44	1.0	13	290	56
AUG 12...	1115	--	150	15	40	11	16	.6	9.5	130	35

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)
NOV 14...	.5	24	488	3.3	.520	5	200	160	2	0
FEB 21...	.3	10	352	2.3	--	--	--	130	--	--
MAY 07...	.7	13	482	1.1	.300	5	200	100	3	0
AUG 12...	.3	11	232	2.8	.030	--	--	50	--	--

DATE	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG) (71895)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV 14...	5	20	0	600	.1	.1	.0	6	0	20
FEB 21...	--	180	--	410	--	--	--	--	--	--
MAY 07...	6	80	0	620	.5	.0	.5	4	0	30
AUG 12...	--	80	--	5	--	--	--	--	--	--

06674500 NORTH PLATTE RIVER AT WYOMING-NEBRASKA STATE LINE

LOCATION.--Lat 41°59'25", long 104°02'57", in SW1/4NE1/4SE1/4 sec.4, T.23 N., R.58 W., Scotts Bluff County, Nebraska, Hydrologic Unit 10180009, on right bank 650 ft (198 m) upstream from bridge on Nebraska State Highway 86, 700 ft (213 m) downstream from Wyoming-Nebraska State line, and 0.5 mi (0.8 km) south of Henry, NE.

DRAINAGE AREA.--22,218 mi² (57,545 km²), of which 1,929 mi² (4,996 km²), is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1929 to current year.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,021.35 ft (1,225.707 m), National Geodetic Vertical Datum of 1929. Prior to Nov. 6, 1929, nonrecording gage and Nov. 6, 1929, to Sept. 30, 1959, water-stage recorder, at site 0.5 mi (0.8 km) upstream at datum 4.42 ft (1.347 m) higher. Oct. 7, 1959 to Feb. 22, 1972, water-stage recorder, at site 0.5 mi (0.8 km) upstream at datum 3.42 ft (1.042 m) higher.

REMARKS.--Records good. Natural flow of stream affected by storage reservoirs, transbasin diversions, power development, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. Gering-Mitchell Canal diverts from right bank 0.8 mi (1.3 km) upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 17,900 ft³/s (507 m³/s) June 2, 1929, gage height, 7.04 ft (2.146 m), site and datum then in use; minimum daily, 13 ft³/s (0.37 m³/s) May 12, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,470 ft³/s (98.3 m³/s) May 3, gage height, 4.93 ft (1.503 m); minimum daily, 226 ft³/s (6.40 m³/s) Jan. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	294	342	265	272	230	374	240	2880	2140	1520	1310	986
2	306	335	265	276	240	366	243	3040	2150	1650	1390	986
3	294	335	265	273	265	363	245	3360	2080	1850	1400	941
4	319	329	265	270	303	366	248	3320	1850	1680	1310	833
5	398	322	273	270	300	382	253	3370	1700	1660	1250	788
6	419	319	276	259	297	386	260	3370	1590	1830	1300	730
7	428	319	276	248	294	370	274	3230	1840	1920	1340	698
8	428	319	282	240	291	366	325	3200	1970	1650	1380	669
9	455	319	291	242	291	363	738	3200	2210	1460	1450	676
10	424	319	297	250	288	352	824	3120	2200	1410	1500	706
11	428	313	265	270	288	342	986	2530	1920	1370	1490	690
12	419	309	260	279	291	329	1040	1660	1530	1430	1510	662
13	406	306	265	297	291	313	1070	1430	1510	1610	1480	669
14	394	297	273	294	294	300	1090	1380	1520	1800	1480	648
15	378	294	267	288	294	288	1510	1520	1530	1700	1650	627
16	366	285	273	282	291	279	2140	2010	1480	1490	1840	641
17	363	285	262	270	294	270	2290	2480	1540	1440	1600	655
18	360	285	265	273	300	267	2370	2970	1830	1420	1580	655
19	363	285	273	270	322	259	2390	2920	1920	1440	1590	683
20	374	294	270	270	390	262	2510	2780	2130	1390	1380	738
21	374	291	273	260	527	265	2570	2890	2190	1400	1260	714
22	356	273	285	266	516	265	2620	3100	2020	1390	1240	683
23	352	273	282	279	465	253	2670	2970	1650	1370	1170	683
24	349	273	285	285	442	237	2850	2950	1350	1330	1130	683
25	342	267	285	282	437	229	2860	2790	1020	1360	1130	683
26	342	267	288	260	442	235	2920	2780	995	1340	1130	669
27	346	267	291	240	442	244	2890	2880	1140	1300	1110	596
28	342	264	288	232	424	246	2900	2660	1430	1300	1070	527
29	352	263	279	228	406	240	2890	2460	1640	1290	986	538
30	352	264	270	227	---	232	2900	2200	1600	1220	959	544
31	349	---	270	226	---	232	---	2100	---	1280	995	---
TOTAL	11472	8913	8524	8178	9955	9275	49116	83750	51675	46300	41410	21001
MEAN	370	297	275	264	343	299	1637	2702	1723	1494	1336	700
MAX	455	342	297	297	527	386	2920	3370	2210	1920	1840	986
MIN	294	263	260	226	230	229	240	1380	995	1220	959	527
AC-FT	22750	17680	16910	16220	19750	18400	97420	166100	102500	91840	82140	41660

CAL YR 1979 TOTAL 188607 MEAN 517 MAX 1590 MIN 98 AC-FT 374100
WTR YR 1980 TOTAL 349569 MEAN 955 MAX 3370 MIN 226 AC-FT 693400

06674500 NORTH PLATTE RIVER AT WYOMING-NEBRASKA STATE LINE--Continued

WATER QUALITY RECORDS

LOCATION.--Daily water temperatures and sampling for specific conductance collected at Farmers Canal diversion dam 1.0 mi (1.6 km) downstream from discharge station.

PERIOD OF RECORD.--Water years 1966 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
OCT 09...	1200	592	850	8.1	11.0	5	8.8	84
NOV 05...	1120	401	940	8.1	5.5	5	9.3	100
DEC 03...	1145	319	1000	8.1	6.0	6	9.8	92
JAN 07...	1245	331	1000	8.0	.5	8	12.6	84
FEB 19...	1000	344	890	8.0	5.5	10	11.0	190
APR 14...	1050	1150	800	8.1	9.0	15	10.4	52
MAY 08...	1015	3000	660	8.2	12.0	20	8.8	60
JUN 09...	1330	2220	645	8.2	18.5	15	8.4	86
JUL 07...	1430	1870	675	8.2	22.5	25	8.3	76
AUG 04...	1600	1290	680	8.1	21.0	40	8.3	120
SEP 09...	1600	706	720	8.1	17.0	20	8.6	130

DATE	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
OCT 09...	280	67	81	20	77	2.0	7.8	210	220
NOV 05...	260	6	70	20	100	2.7	8.0	250	200
DEC 03...	290	44	85	19	110	2.8	9.5	250	240
JAN 07...	300	32	90	19	110	2.8	9.3	270	250
FEB 19...	310	47	84	23	95	2.4	8.0	260	240
APR 14...	280	91	75	22	62	1.6	6.0	190	200
MAY 08...	220	64	79	5.7	49	1.4	3.8	160	150
JUN 09...	230	82	56	23	53	1.5	4.5	150	180
JUL 07...	220	81	57	18	45	1.3	3.8	140	160
AUG 04...	240	84	69	16	47	1.3	5.3	160	170
SEP 09...	260	80	71	19	69	1.9	5.4	180	200

06674500 NORTH PLATTE RIVER AT WYOMING-NEBRASKA STATE LINE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)
OCT								
09...	18	.5	20	576	.78	921	1.4	.130
NOV								
05...	20	.5	23	593	.81	642	1.9	.020
DEC								
03...	22	.6	26	664	.90	572	2.2	.080
JAN								
07...	4.5	.5	29	685	.93	612	2.2	.170
FEB								
19...	12	.6	27	657	.89	610	2.2	.120
APR								
14...	16	.5	3.2	500	.68	1550	1.0	.110
MAY								
08...	12	.8	8.9	400	.54	3240	.24	.040
JUN								
09...	13	.7	9.0	430	.58	2580	.20	.050
JUL								
07...	10	.5	7.1	380	.52	1920	.17	.050
AUG								
04...	13	.5	9.3	420	.57	1460	.46	.130
SEP								
09...	15	.5	11	502	.68	957	.76	.040

06677500 HORSE CREEK NEAR LYMAN, NE

LOCATION.--Lat 41°56'21", long 103°59'13", in SE1/4NE1/4 sec.25, T.23 N., R.58 W., Scotts Bluff County, Hydrologic Unit 10180012, on right bank 10 ft (3 m) upstream from county highway bridge, 1.8 mi (2.9 km) upstream from mouth, 2.2 mi (3.5 km) downstream from Owl Creek, and 3.2 mi (5.1 km) northeast of Lyman.

DRAINAGE AREA.--1,570 mi² (4,070 km²), approximately, of which about 40 mi² (100 km²) is noncontributing.

PERIOD OF RECORD.--February 1931 to current year.

REVISED RECORDS.--WSP 926: 1940(M). WDR NE-67: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,992.84 ft (1,217.018 m), National Geodetic Vertical Datum of 1929 (levels by private engineering firm). See WSP 2118 for history of changes prior to Apr. 17, 1967.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--49 years, 68.5 ft³/s (1.940 m³/s), 49,630 acre-ft/yr (61.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,110 ft³/s (145 m³/s) June 6, 1967, gage height, 10.82 ft (3.298 m), from rating curve extended above 1,900 ft³/s (53.8 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 0.4 ft³/s (0.011 m³/s) Feb. 1, 2, 1949.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,080 ft³/s (87.2 m³/s) May 24, gage height, 8.42 ft (2.566 m); minimum daily, 14 ft³/s (0.40 m³/s) Jan. 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	155	51	30	30	17	46	35	26	239	57	82	221
2	132	50	40	32	20	44	37	26	208	51	78	209
3	114	49	47	32	22	44	37	25	218	51	77	212
4	105	48	48	31	24	41	39	25	208	63	81	234
5	100	47	54	30	27	39	57	24	221	60	78	230
6	94	47	47	20	30	38	109	26	204	52	77	230
7	90	47	47	18	32	39	64	32	203	55	76	236
8	88	48	47	16	28	38	50	23	202	64	67	240
9	84	47	46	14	26	36	42	23	195	57	74	246
10	84	47	46	14	26	34	40	24	217	60	78	280
11	81	47	46	25	24	33	39	41	208	63	74	278
12	78	46	45	30	24	32	39	184	211	65	72	262
13	77	45	45	40	22	31	37	411	202	74	71	238
14	78	44	45	42	22	31	36	339	179	70	81	204
15	72	43	40	37	19	30	33	226	165	67	114	204
16	70	41	34	36	23	29	31	243	179	68	162	221
17	69	39	34	32	27	28	31	313	223	69	145	221
18	66	37	40	31	30	28	30	301	199	65	139	199
19	65	37	37	26	34	27	30	281	190	68	137	178
20	63	30	37	29	60	26	29	233	181	80	149	212
21	65	34	37	29	80	27	29	215	183	69	162	192
22	61	38	36	28	101	26	29	157	205	68	174	190
23	59	44	36	28	80	26	31	219	204	69	165	217
24	58	40	35	27	68	26	31	1120	197	76	155	242
25	57	38	35	22	61	27	29	281	160	79	154	281
26	54	42	34	22	55	29	28	257	125	83	160	274
27	52	38	34	20	53	29	28	238	86	91	163	261
28	52	32	33	20	51	31	27	188	81	91	169	278
29	55	30	33	17	48	31	26	189	74	85	180	260
30	57	26	33	17	---	33	26	191	73	72	215	229
31	54	---	30	17	---	35	---	232	---	76	218	---
TOTAL	2389	1252	1231	812	1134	1014	1129	6113	5440	2118	3827	6979
MEAN	77.1	41.7	39.7	26.2	39.1	32.7	37.6	197	181	68.3	123	233
MAX	155	51	54	42	101	46	109	1120	239	91	218	281
MIN	52	26	30	14	17	26	26	23	73	51	67	178
AC-FT	4740	2480	2440	1610	2250	2010	2240	12130	10790	4200	7590	13840

CAL YR 1979 TOTAL 34365 MEAN 94.2 MAX 1160 MIN 11 AC-FT 68160
WTR YR 1980 TOTAL 33438 MEAN 91.4 MAX 1120 MIN 14 AC-FT 66320

06678000 SHEEP CREEK NEAR MORRILL, NE

LOCATION.--Lat 41°57'50", long 103°56'20", in NW1/4SW1/4 sec.16, T.23 N., R.57 W., Scotts Bluff County, Hydrologic Unit 10180009, on right bank 40 ft (12 m) upstream from Burlington Northern Inc. bridge, 50 ft (15 m) downstream from bridge on U.S. Highway 26, 1 mi (2 km) west of Morrill, and 1.5 mi (2.4 km) upstream from mouth.

DRAINAGE AREA.--362 mi^2 (938 km^2), of which about 25 mi^2 (65 km^2) is noncontributing.

PERIOD OF RECORD.--October 1931 to current year.

REVISED RECORDS.--WDR NE-67: Drainage area. WSP 2118: 1936(M), 1946(M).

GAGE.--Water-stage recorder. Datum of gage is 3,995.04 ft (1,217.688 m) National Geodetic Vertical Datum of 1929. Prior to Apr. 14, 1940, nonrecording gage at site 20 ft (6 m) upstream at same datum.

REMARKS.--Records good. Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--49 years, 55.1 ft^3/s (1.560 m^3/s), 39,920 acre-ft/yr (49.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 516 ft^3/s (14.6 m^3/s) July 21, 1978, gage height, 6.62 ft (2.018 m); maximum gage height, 6.75 ft (2.057 m) Aug. 2, 1932, from floodmark, due to break in Interstate Canal (discharge not determined); minimum daily discharge, 0.1 ft^3/s (0.003 m^3/s) Dec. 16, 23, 1956, Jan. 18, Mar. 12, 1957, result of diversion for construction upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 158 ft^3/s (4.47 m^3/s) Sept. 25, gage height, 2.74 ft (0.835 m); minimum daily, 2.9 ft^3/s (0.082 m^3/s) May 20-22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	120	98	88	86	82	80	79	70	4.6	4.6	3.8	5.9
2	118	98	88	86	82	80	79	70	4.3	4.8	3.8	5.9
3	111	96	88	86	82	80	79	70	4.3	5.1	3.8	5.9
4	110	95	90	86	82	80	80	70	4.3	5.1	3.8	5.3
5	110	94	90	88	82	78	81	71	4.8	5.1	3.4	5.1
6	114	94	90	90	82	79	80	73	4.8	5.1	3.6	4.8
7	114	94	90	90	82	79	78	71	4.8	5.1	3.6	4.8
8	113	95	90	90	80	78	75	70	4.8	5.1	3.6	4.6
9	115	94	90	90	79	77	75	70	4.8	5.1	3.6	4.6
10	114	94	91	90	80	78	76	70	4.6	5.1	3.6	4.6
11	113	94	90	88	78	78	77	75	4.6	6.2	3.8	4.6
12	113	93	90	89	78	76	75	82	4.6	5.3	4.1	3.8
13	111	93	90	90	78	75	75	76	4.6	6.8	3.4	3.4
14	109	93	92	89	79	76	75	75	4.6	4.6	3.2	3.4
15	109	93	92	87	79	76	74	78	4.6	4.6	3.6	3.2
16	112	93	90	86	79	76	72	79	4.6	4.6	3.6	3.2
17	111	93	91	86	78	76	71	78	4.6	4.6	3.6	3.2
18	111	94	90	86	80	76	73	78	4.6	4.6	3.6	3.0
19	109	92	89	86	82	77	74	23	4.6	4.6	3.8	3.0
20	109	96	87	82	86	77	76	2.9	4.6	4.6	10	3.6
21	110	96	87	82	108	77	77	2.9	4.6	4.6	3.8	3.4
22	106	94	87	80	114	77	74	2.9	4.6	4.6	4.1	3.4
23	105	94	87	80	110	77	74	3.0	4.6	4.8	4.1	3.6
24	104	93	85	81	93	77	74	3.0	4.6	4.8	4.3	3.8
25	104	93	86	82	85	77	72	3.0	4.6	4.6	4.6	80
26	102	91	84	81	83	77	70	3.0	4.6	9.3	4.8	120
27	101	89	86	80	82	77	67	3.2	4.6	4.3	5.3	120
28	101	89	84	79	82	78	66	3.2	4.6	4.6	5.3	121
29	104	89	84	81	82	78	68	3.2	4.6	4.3	5.6	124
30	102	89	84	82	---	78	70	3.8	4.6	4.1	5.6	123
31	102	---	84	80	---	78	---	4.8	---	3.8	5.6	---
TOTAL	3387	2803	2734	2639	2449	2403	2236	1387.9	138.1	154.5	132.4	788.1
MEAN	109	93.4	88.2	85.1	84.4	77.5	74.5	44.8	4.60	4.98	4.27	26.3
MAX	120	98	92	90	114	80	81	82	4.8	9.3	10	124
MIN	101	89	84	79	78	75	66	2.9	4.3	3.8	3.2	3.0
AC-FT	6720	5560	5420	5230	4860	4770	4440	2750	274	306	263	1560

CAL YR 1979 TOTAL 20332.0 MEAN 55.7 MAX 125 MIN 2.4 AC-FT 40330
WTR YR 1980 TOTAL 21252.0 MEAN 58.1 MAX 124 MIN 2.9 AC-FT 42150

06679500 NORTH PLATTE RIVER AT MITCHELL, NE

LOCATION.--Lat 41°55'38", long 103°48'48", in NE1/4NE1/4 sec.33, T.23 N., R.56 W., Scotts Bluff County, Hydrologic Unit 10180009, on right bank of main channel on downstream side of bridge on State Highway 29, 0.5 mi (0.8 km) south of Mitchell.

DRAINAGE AREA.--24,300 mi^2 (62,900 km^2), approximately, of which about 22,300 mi^2 (57,800 km^2) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1901 to September 1910, May to December 1911, February 1912 to July 1913 (gage heights only), May 1916 to October 1918 (irrigation seasons only), May 1920 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,929.3 ft (1,197.65 m) National Geodetic Vertical Datum of 1929. See WSP 1918 for history of changes prior to May 27, 1960. May 27, 1960 to Aug. 24, 1971, at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,500 ft^3/s (779 m^3/s) June 3, 1909, gage height, 6.45 ft (1.966 m), datum then in use, from graph based on gage readings, from rating curve extended above 17,000 ft^3/s (481 m^3/s); minimum daily observed, 25 ft^3/s (0.71 m^3/s) Sept. 25-29, 1908.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,400 ft^3/s (125 m^3/s) May 24, gage height, 6.86 ft (2.091 m); minimum daily, 284 ft^3/s (8.04 m^3/s) July 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	696	711	535	522	495	702	567	2890	1890	547	356	450
2	686	700	535	540	551	691	572	2970	1880	596	422	466
3	656	692	548	544	576	686	580	3140	1820	748	462	454
4	647	690	557	540	576	683	590	3200	1750	758	398	475
5	741	681	590	540	573	664	622	3240	1660	587	330	446
6	814	676	581	520	567	673	679	3260	1400	656	295	434
7	835	681	594	470	562	670	706	3060	1460	714	309	426
8	835	676	594	478	539	666	652	2710	1560	666	320	426
9	868	664	599	465	526	658	832	2720	1680	491	338	414
10	869	653	613	491	526	647	1070	2700	1730	430	371	426
11	845	641	594	491	517	636	1180	2510	1630	375	379	442
12	854	626	558	513	513	626	1280	1910	1360	352	386	442
13	837	622	553	553	517	605	1340	1920	1270	367	367	434
14	824	614	553	562	517	587	1390	1760	1290	491	345	418
15	804	609	548	553	504	576	1490	1700	1270	530	394	410
16	787	587	506	548	504	559	1950	1950	1270	500	610	414
17	781	581	510	540	491	545	2190	2230	1280	487	610	418
18	772	570	511	535	508	542	2310	2600	1430	450	539	398
19	763	556	517	531	562	542	2380	2650	1470	442	543	379
20	762	576	508	517	757	541	2440	2290	1650	450	513	470
21	796	533	517	513	1040	546	2490	2220	1670	418	434	513
22	767	536	531	522	1080	544	2540	2240	1620	383	398	475
23	753	555	544	526	904	536	2590	2360	1350	364	402	462
24	749	548	540	544	837	516	2790	3440	1080	349	402	483
25	740	553	548	553	786	505	2870	2540	851	349	390	552
26	732	548	548	513	773	505	2920	2460	676	367	383	642
27	724	540	558	500	776	503	2960	2500	613	356	394	719
28	713	526	564	491	758	525	3000	2450	571	364	422	798
29	726	513	540	482	743	536	2940	2270	522	341	426	854
30	744	535	517	478	---	545	2920	1970	615	309	434	934
31	727	---	513	482	---	550	---	1900	---	284	438	---
TOTAL	23847	18193	17024	16057	18578	18310	52840	77760	40318	14521	12810	15074
MEAN	769	606	549	518	641	591	1761	2508	1344	468	413	502
MAX	869	711	613	562	1080	702	3000	3440	1890	758	610	934
MIN	647	513	506	465	491	503	567	1700	522	284	295	379
AC-FT	47300	36090	33770	31850	36850	36320	104800	154200	79970	28800	25410	29900

CAL YR 1979 TOTAL 183183 MEAN 502 MAX 1260 MIN 202 AC-FT 363300
WTR YR 1980 TOTAL 325332 MEAN 889 MAX 3440 MIN 284 AC-FT 645300

06681500 GERING DRAIN NEAR GERING, NE

LOCATION.--Lat 41°49'20", long 103°37'02", in SE1/4NE1/4 sec.6, T.21 N., R.54 W., Scotts Bluff County, Hydrologic Unit 10180009, near left bank on downstream side of bridge piling on county road, 0.2 mi (0.3 km) downstream from bridge on State Highway 92, 1 mi (2 km) upstream from mouth, and 2 mi (3 km) east of Gering.

PERIOD OF RECORD.--February 1931 to September 1945, October 1948 to current year.

REVISED RECORDS.--WSP 896: 1935(M). WDR NE-79-1: 1977, 1978 (M).

GAGE.--Water-stage recorder. Datum of gage is 3,853.62 ft (1,174.583 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). See WSP 1918 for history of changes prior to June 27, 1958. June 27, 1958, to Oct. 27, 1970, at datum 3.0 ft (0.91 m) higher. Oct. 28, 1970 to Dec. 8, 1975, at datum 1.0 ft (0.30 m) higher.

REMARKS.--Records good. Base flow is mainly return water from land irrigated by Fort Laramie Canal.

AVERAGE DISCHARGE.--46 years, 46.8 ft^3/s (1.325 m^3/s), 33,910 acre-ft/yr (41.8 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,560 ft^3/s (271 m^3/s) June 8, 1958, gage height, 14.0 ft (4.27 m), present datum, from floodmarks, from rating curve extended above 2,200 ft^3/s (62.3 m^3/s) on basis of slope-area measurements at gage heights 12.67 ft (3.862 m) and 14.0 ft (4.27 m) present datum; minimum daily, 5 ft^3/s (0.14 m^3/s) Aug. 13, 16, 19, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 480 ft^3/s (13.6 m^3/s) June 16, gage height, 2.80 ft (0.853 m); minimum daily, 22 ft^3/s (0.62 m^3/s) Apr. 25, 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	99	32	33	28	28	26	27	23	137	59	83	128
2	101	32	35	28	28	26	27	23	148	55	83	131
3	110	32	37	28	28	28	27	23	146	87	82	122
4	112	32	38	28	28	28	27	25	137	102	82	115
5	87	32	38	29	28	27	28	25	154	84	82	112
6	44	32	35	25	28	27	39	25	156	82	78	116
7	40	32	35	24	28	27	33	27	182	78	76	116
8	39	32	33	24	27	27	28	27	182	88	79	120
9	41	33	33	23	26	28	28	27	182	73	79	140
10	40	33	33	23	26	27	28	27	171	108	83	149
11	40	34	31	28	26	28	28	31	164	108	83	149
12	41	34	28	28	26	28	27	38	158	102	84	150
13	42	34	28	30	26	27	27	46	148	96	84	161
14	42	35	28	28	26	27	27	92	142	101	84	175
15	41	35	28	28	26	27	27	120	140	96	98	175
16	41	35	28	28	25	28	26	142	184	94	101	177
17	41	34	28	28	25	28	26	137	179	87	91	180
18	41	34	28	28	25	28	26	136	167	85	88	158
19	39	33	28	28	64	27	24	118	164	88	85	158
20	38	38	28	28	40	26	24	98	166	88	88	161
21	43	36	28	28	79	26	24	96	161	87	88	148
22	38	35	28	28	37	26	23	116	155	82	87	148
23	36	36	28	28	31	26	24	158	132	78	82	152
24	36	36	28	29	29	26	23	165	99	82	83	163
25	35	35	28	29	28	26	22	161	103	84	89	158
26	36	35	28	28	28	28	22	156	79	94	96	179
27	34	34	30	28	28	27	23	182	68	96	109	179
28	34	33	29	28	27	28	23	163	71	92	109	160
29	42	33	28	28	27	27	23	148	78	88	113	146
30	36	33	28	28	---	26	23	136	78	87	119	99
31	32	---	28	28	---	26	---	137	---	87	125	---
TOTAL	1521	1014	944	852	898	837	784	2828	4231	2718	2793	4425
MEAN	49.1	33.8	30.5	27.5	31.0	27.0	26.1	91.2	141	87.7	90.1	148
MAX	112	38	38	30	79	28	39	182	184	108	125	180
MIN	32	32	28	23	25	26	22	23	68	55	76	99
AC-FT	3020	2010	1870	1690	1780	1660	1560	5610	8390	5390	5540	8780

CAL YR 1979 TOTAL 27276 MEAN 74.7 MAX 807 MIN 23 AC-FT 54100
WTR YR 1980 TOTAL 23845 MEAN 65.2 MAX 184 MIN 22 AC-FT 47300

06682000 NORTH PLATTE RIVER NEAR MINATARE, NE

LOCATION.--Main channel gage: Lat 41°47'26", long 103°31'11", in NE1/4SE1/4 sec.13, T.21 N., R.54 W., Scotts Bluff County, Hydrologic Unit 10180009, on left bank 220 ft (67 m) upstream from bridge on State Highway 326 and 1.8 mi (2.9 km) southwest of Minatare. Nine Mile channel gage: Lat 41°47'32", long 103°31'08", in NE1/4SE1/4 sec.13, T.21 N., R.54 W., Scotts Bluff County, Hydrologic Unit 10180009, on left bank 50 ft (15 m) upstream from bridge on State Highway 326 and 750 ft (229 m) north of main channel bridge.

DRAINAGE AREA.--24,700 mi² (64,000 km²), approximately, of which about 22,740 mi² (58,900 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--May to August 1916, May 1917 to September 1918, May to October 1919, April to September 1922, June 1923 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1710, WDR NE-76-1: Drainage area.

GAGE.--Main channel: Water-stage recorder. Datum of gage is 3,810.7 ft (1,161.50 m) National Geodetic Vertical Datum of 1929. Nov. 2, 1966 to July 13, 1976 water-stage recorder at datum 1.00 ft (0.305 m) higher. See WDR NE-72 for history of changes prior to Nov. 2, 1966.
Nine Mile channel: Water-stage recorder. Datum of gage is 3,812.3 ft (1,161.99 m) National Geodetic Vertical Datum of 1929. See WDR NE-72 for history of changes prior to Aug. 25, 1971.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. River flows in two channels for which separate records are computed; figures given herein represent combined discharge.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,500 ft³/s (552 m³/s) July 2, 1917, from graph based on mean daily discharge and discharge measurement published by State engineer of Nebraska; minimum daily, 11 ft³/s (0.31 m³/s) Aug. 16-18, 1940.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 18, 1921, may have been greater than flood of July 2, 1917.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,420 ft³/s (125 m³/s) May 24; minimum daily, 354 ft³/s (10.0 m³/s) Aug. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1130	969	831	856	810	1010	778	3550	2470	642	426	760
2	1110	965	828	863	824	974	777	3540	2480	612	473	773
3	1090	962	839	863	873	973	779	3650	2360	709	510	771
4	1070	961	864	851	878	979	783	3760	2190	797	509	757
5	1080	953	896	848	875	961	817	3790	2070	711	446	746
6	1070	950	900	844	885	960	870	3800	1900	634	364	742
7	1080	952	910	816	884	967	927	3780	1860	673	354	746
8	1080	963	908	782	861	962	861	3320	1950	740	363	739
9	1090	952	909	801	844	954	900	3320	2060	633	385	765
10	1100	938	920	797	841	949	1200	3380	2170	635	462	775
11	1070	943	917	744	832	946	1310	3410	2140	636	499	784
12	1070	941	886	772	834	935	1430	2820	1860	630	498	783
13	1050	940	871	840	832	916	1510	2580	1650	631	487	798
14	1040	932	887	898	830	899	1550	2440	1620	654	493	784
15	1010	930	881	883	822	881	1600	2330	1620	733	531	765
16	982	928	859	860	819	865	1970	2500	1610	715	658	753
17	979	913	859	850	812	840	2410	2840	1590	676	754	782
18	963	911	871	834	814	831	2600	3160	1640	650	723	786
19	949	908	880	827	897	824	2740	3390	1710	614	707	757
20	949	920	888	819	1040	805	2830	3110	1830	616	700	775
21	1020	882	887	801	1380	812	2920	2980	1890	560	667	863
22	981	873	889	800	1580	802	3000	2950	1900	525	630	854
23	976	884	904	809	1270	795	3080	2950	1700	492	614	846
24	955	876	904	813	1170	775	3230	3850	1460	487	615	860
25	946	876	909	835	1110	755	3360	3500	1150	491	603	882
26	949	868	909	805	1080	764	3420	3180	893	535	599	1000
27	935	853	939	791	1070	745	3460	3180	737	527	614	1120
28	933	844	928	782	1070	749	3530	3140	681	520	614	1220
29	989	835	911	780	1040	759	3550	3070	647	493	651	1310
30	1010	821	871	805	---	757	3560	2810	656	460	701	1450
31	990	---	846	810	---	766	---	2530	---	430	734	---
TOTAL	31646	27443	27501	25479	27877	26910	61752	98610	50494	18861	17384	25746
MEAN	1021	915	887	822	961	868	2058	3181	1683	608	561	858
MAX	1130	969	939	898	1580	1010	3560	3850	2480	797	754	1450
MIN	933	821	828	744	810	745	777	2330	647	430	354	739
AC-FT	62770	54430	54550	50540	55290	53380	122500	195600	100200	37410	34480	51070

CAL YR 1979 TOTAL 286672 MEAN 785 MAX 2510 MIN 271 AC-FT 568600
WTR YR 1980 TOTAL 439703 MEAN 1201 MAX 3850 MIN 354 AC-FT 872200

06682505 NORTH PLATTE RIVER AT MC GREW, NEBR.

LOCATION.--Lat 41°45'42", long 103°25'02", in SW1/4 sec.25, T.21 N., R.53 W., Scotts Bluff County, Hydrologic Unit 10180009, at bridge on county road 1.2 mi (1.9 km) north of State Highway 92, 0.3 mi (0.5 km) downstream from Ninemile Creek and 0.9 mi (1.4 km) north of McGrew.

PERIOD OF RECORD.--Chemical analyses: June 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT										
22...	0915	1000	940	8.3	7.0	29	9.6	3.9	1600	1500
NOV										
20...	0930	1030	973	8.1	5.0	20	10.0	3.4	1400	980
DEC										
10...	0900	1100	960	8.0	6.5	30	9.2	1.2	1900	1800
JAN										
14...	0915	987	970	8.0	7.0	40	9.8	2.5	2200	K19000
FEB										
19...	0915	956	860	8.2	5.5	25	11.8	3.6	K1700	5300
MAR										
17...	0915	895	970	8.3	5.0	15	10.3	5.4	260	1020
APR										
14...	0900	1670	840	8.3	8.0	50	9.2	2.4	930	720
MAY										
19...	0820	3700	690	8.4	12.5	50	8.6	7.1	360	940
JUN										
16...	0900	1570	800	8.2	9.5	45	8.2	2.5	35	330
JUL										
21...	0915	735	870	8.2	18.5	100	7.4	3.3	K2100	K2000
AUG										
18...	0815	1020	850	8.3	18.5	85	7.6	3.8	K650	4900
SEP										
15...	0900	950	920	8.2	17.0	50	8.2	2.0	230	8100

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT										
22...	21	656	.89	1770	2.9	.08	.85	.93	3.8	.100
NOV										
20...	22	651	.89	1810	3.4	.17	.56	.73	4.1	.100
DEC										
10...	23	675	.92	2000	3.2	.27	.93	1.2	4.4	.200
JAN										
14...	24	699	.95	1860	1.2	.07	.92	.99	2.2	.190
FEB										
19...	26	681	.93	1760	3.0	.05	1.2	1.2	4.2	.130
MAR										
17...	24	692	.94	1670	3.1	.15	1.1	1.2	4.3	.140
APR										
14...	20	594	.81	2680	5.0	.00	1.7	1.7	6.7	.130
MAY										
19...	13	474	.64	4740	.63	.07	1.1	1.2	1.8	.150
JUN										
16...	16	526	.72	2230	.82	.04	1.1	1.1	1.9	.130
JUL										
21...	18	615	.84	1220	2.6	.08	1.6	1.7	4.3	.380
AUG										
18...	20	592	.81	1630	2.0	.05	5.4	5.4	7.4	.360
SEP										
15...	23	654	.89	1680	2.0	.00	1.2	1.2	3.2	.240

06682505 NORTH PLATTE RIVER AT MC GREW, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLOR (PLATINUM COBALT UNITS) (00080)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)
NOV 20...	0930	10	300	43	85	22	110	2.8	10	260	240
FEB 19...	0915	5	310	63	89	22	100	2.5	10	250	240
MAY 19...	0820	15	230	73	62	19	59	1.7	6.3	160	170
AUG 18...	0815	25	270	57	74	20	85	2.3	10	210	190

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)
NOV 20...	.5	39	700	3.4	.050	9	100	170	2	20
FEB 19...	.5	40	691	3.0	.040	--	--	170	--	--
MAY 19...	.4	15	444	.60	.030	6	90	120	2	0
AUG 18...	.3	30	565	2.0	.040	--	--	190	--	--

DATE	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG) (71895)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
NOV 20...	2	10	0	5	.0	.0	.0	4	0	<3
FEB 19...	--	<10	--	8	--	--	--	--	--	--
MAY 19...	13	20	0	9	.1	.0	.1	3	0	<3
AUG 18...	--	10	--	10	--	--	--	--	--	--

06684500 NORTH PLATTE RIVER AT BRIDGEPORT, NE

LOCATION.--Main channel gage: Lat 41°40'54", long 103°05'52", in NW1/4NW1/4 sec.28, T.20 N., R.50 W., Morrill County, Hydrologic Unit 10180009, on left bank 0.3 mi (0.5 km) upstream from bridge on U.S. Highway 26, 0.8 mi (1.3 km) north of Bridgeport. Browns Creek channel gage: Lat 41°40'55", long 103°05'53", in NW1/4NW1/4 sec.28, T.20 N., R.50 W., Morrill County, on left bank 0.2 mi (0.3 km) upstream from culvert on U.S. Highway 26 and 0.8 mi (1.3 km) north of Bridgeport.

DRAINAGE AREA.--25,300 mi² (65,500 km²), approximately, of which about 23,300 mi² (60,300 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1896 to October 1900 (no winter records most years), May 1902 to November 1906, June to August 1915, May 1916 to current year. Monthly discharge only for some years, published in WSP 1310. Published as "near Camp Clark" 1896-1900.

REVISED RECORDS.--WSP 1390: 1897, 1915. WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Main channel: Water-stage recorder. Datum of gage is 3,656.14 ft (1,114.391 m) National Geodetic Vertical Datum of 1929. See WSP 1918 for history of changes prior to Oct. 7, 1927.
Browns Creek channel: Water-stage recorder. Datum of gage is 3,663.51 ft (1,116.638 m) National Geodetic Vertical Datum of 1929. See WSP 1918 for history of changes prior to June 1, 1943.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. River flows in two independently rated channels for which separate records are computed; figures herein represent combined discharge.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,900 ft³/s (705 m³/s) June 26, 1899, gage height, 5.39 ft (1.643 m), site and datum then in use, from graph based on gage readings; minimum daily, 55 ft³/s (1.56 m³/s) May 28, 1934, Aug. 15, 1940, but may have been less during periods of no record for Browns Creek channel.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,160 ft³/s (146 m³/s) May 25; minimum daily, 487 ft³/s (13.8 m³/s) Aug. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1410	1280	1010	861	669	1120	962	3520	3020	762	630	1140
2	1340	1280	1000	870	760	1110	940	3510	3020	681	621	1190
3	1350	1280	1000	896	799	1130	940	3620	2870	680	622	1130
4	1300	1270	1040	905	969	1180	940	3890	2700	815	645	1080
5	1320	1290	1090	913	1030	1170	984	3940	2540	828	601	1070
6	1380	1280	1070	985	999	1140	1010	3860	2460	702	548	1070
7	1380	1260	1080	824	923	1080	1030	3800	2670	678	508	1060
8	1390	1180	1100	807	862	1040	1040	3580	2390	815	487	1070
9	1380	1080	1110	837	848	1090	1040	3520	2450	775	516	1060
10	1360	1070	1140	852	876	1100	1210	3950	2570	723	561	1100
11	1330	1090	1130	905	864	1080	1380	4220	2540	1180	635	1130
12	1320	1090	1080	922	879	1070	1460	4110	2370	1040	661	1150
13	1320	1080	1090	870	880	1010	1530	3560	2030	972	650	1160
14	1320	1100	1090	921	879	1030	1590	3290	1840	933	644	1130
15	1340	1110	1070	1000	877	1020	1690	3030	1830	932	702	1130
16	1320	1130	1050	1000	859	1010	1800	2990	1730	873	832	1120
17	1310	1110	1040	993	816	969	2200	3220	1740	792	999	1160
18	1260	1080	1050	967	807	956	2560	3540	1590	711	1070	1140
19	1160	1040	1070	958	817	977	2790	3890	1700	676	1020	1130
20	1110	1050	1060	984	951	980	3050	3780	1810	680	1030	1120
21	1160	1060	1060	984	1270	980	3170	3590	1940	750	1300	1160
22	1160	1070	1050	1000	1540	967	3310	3500	2020	717	933	1210
23	1160	1030	1020	993	1340	949	3410	3360	1960	676	890	1180
24	1180	1030	1040	940	1230	940	3430	3690	1720	660	881	1200
25	1130	1030	1030	887	1110	922	3560	4380	1440	673	907	1210
26	1140	1000	1020	896	1140	949	3670	3650	1240	747	901	1290
27	1200	940	1000	810	1180	967	3600	3540	1030	768	946	1450
28	1250	887	968	800	1180	984	3480	3680	866	763	973	1560
29	1360	852	896	832	1140	976	3570	3770	803	734	976	1650
30	1410	984	834	781	---	974	3520	3720	797	692	1000	1770
31	1350	---	834	710	---	972	---	3200	---	660	1080	---
TOTAL	39900	33033	32122	27833	28494	31842	64866	112900	59686	24088	24469	36020
MEAN	1287	1101	1036	858	983	1027	2162	3642	1990	777	789	1201
MAX	1410	1290	1140	1000	1540	1180	3670	4380	3020	1180	1080	1770
MIN	1110	852	834	710	669	922	940	2990	797	660	487	1060
AC-FT	79140	65520	63710	55210	56520	63160	128700	223900	118400	47780	48530	71450

CAL YR 1979 TOTAL 357541 MEAN 980 MAX 2030 MIN 310 AC-FT 709200
WTR YR 1980 TOTAL 515253 MEAN 1408 MAX 4380 MIN 487 AC-FT 1022000

06684500 NORTH PLATTE RIVER AT BRIDGEPORT, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1971 to January 1980 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)
OCT							
24...	1105	1130	948	8.2	10.0	25	9.6
NOV							
19...	1400	1100	945	8.1	8.5	20	10.9
DEC							
11...	1345	1130	965	8.1	4.0	30	11.3
JAN							
17...	1530	1010	933	7.8	7.5	20	10.3

06685000 PUMPKIN CREEK NEAR BRIDGEPORT, NE

LOCATION.--Lat 41°37'38", long 103°02'10", in SW1/4 sec.12, T.19 N., R.50 W., Morrill County, Hydrologic Unit 10180013, on right (revised) bank 250 ft (76 m) downstream from bridge on U.S. Highway 385 and State Highway 92, 0.5 mi (0.8 km) upstream from mouth, and 4 mi (6 km) southeast of Bridgeport.

DRAINAGE AREA.--1,020 mi^2 (2,640 km^2), approximately.

PERIOD OF RECORD.--February 1931 to current year.

REVISED RECORDS.--WSP 1390: 1932, 1934(M), 1935, 1936(M), 1938-39. WDR NE-67: Drainage area.

GAGE.--Water-stage recorder. Sheet piling control since December 1964. Datum of gage is 3,635.99 ft (1,108.250 m) National Geodetic Vertical Datum of 1929. Prior to June 25, 1934, nonrecording gage on downstream side of bridge 240 ft (73 m) upstream and June 25, 1934, to May 18, 1936, water-stage recorder at upstream side of bridge 260 ft (79 m) upstream, both at datum 0.29 ft (0.088 m) higher. May 19, 1936 to June 8, 1965, water-stage recorder, June 9, 1965 to Sept. 1, 1965, non-recording gage, and Sept. 2, 1965 to Sept. 18, 1980, water-stage recorder, all on left bank 250 ft (76 m) downstream from bridge at present datum.

REMARKS.--Records good. Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--49 years, 29.1 ft^3/s (0.824 m^3/s), 21,080 acre-ft/yr (26.0 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,880 ft^3/s (223 m^3/s) June 9, 1965, gage height, 9.98 ft (3.042 m), from floodmark, from rating curve extended above 3,500 ft^3/s (99.1 m^3/s) on basis of rating extension for main channel and determination of flow over road; no flow July 22, 24-26, Aug. 5-8, 1975; July 9, 11, 22, 23, 28, 29, 1976; July 2-6, Aug. 2, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 74 ft^3/s (2.10 m^3/s) May 25, gage height, 2.40 ft (0.732 m); maximum gage height, 2.56 ft (0.780 m) Dec. 17, backwater from ice; minimum daily discharge, 0.03 ft^3/s (0.0008 m^3/s) July 3, Aug. 5, 7-11, 13, 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	12	18	13	17	22	30	26	46	.50	.19	2.4
2	6.5	11	17	13	17	22	28	31	45	.23	.11	4.8
3	6.0	12	14	13	17	22	28	31	42	.03	.14	7.9
4	7.3	12	15	13	17	24	27	29	14	.04	.12	8.8
5	7.9	13	14	13	17	24	28	25	12	.10	.03	8.7
6	8.0	14	15	13	18	23	28	22	12	.04	.04	8.2
7	7.7	14	15	10	18	23	30	53	10	.04	.03	7.1
8	5.7	13	15	10	17	24	28	58	13	.04	.03	7.3
9	5.8	13	15	20	16	23	28	58	18	.18	.03	7.8
10	7.0	13	15	20	18	23	27	44	23	.62	.03	8.3
11	7.8	13	15	17	17	23	26	45	23	2.4	.03	8.3
12	7.7	13	14	16	17	23	25	47	25	16	.04	6.7
13	7.2	14	15	16	17	23	25	38	14	10	.03	4.4
14	8.3	14	14	16	17	23	25	33	7.8	10	.03	4.4
15	9.2	14	14	16	17	23	24	38	7.8	8.4	.16	4.0
16	9.4	14	14	15	17	23	23	42	9.5	2.5	.24	3.7
17	8.3	14	14	15	17	23	23	47	15	.81	.20	3.8
18	7.1	14	13	15	18	23	23	48	14	.44	.16	3.7
19	8.3	14	13	15	21	23	24	46	20	.36	.26	3.7
20	9.4	15	13	15	30	23	24	43	32	.29	.07	4.0
21	10	10	13	15	28	23	24	40	31	.41	.04	4.1
22	11	10	14	16	25	23	24	36	30	.33	.04	4.2
23	11	15	13	17	23	23	25	35	30	.07	.07	4.5
24	11	20	13	18	24	23	26	36	28	.07	.26	8.6
25	11	15	13	17	23	23	26	62	23	.22	.32	13
26	11	15	13	17	23	23	26	52	13	1.7	.28	13
27	11	14	14	17	22	24	27	47	3.6	.63	.24	14
28	12	15	13	17	23	25	26	46	2.1	.66	.22	15
29	13	15	13	17	24	23	25	45	1.1	.63	.14	15
30	13	14	13	17	---	24	25	45	.78	.57	1.8	15
31	13	---	13	17	---	26	---	27	---	.39	2.4	---
TOTAL	279.6	409	437	479	575	720	778	1275	565.68	58.70	7.78	224.4
MEAN	9.02	13.6	14.1	15.5	19.8	23.2	25.9	41.1	18.9	1.89	.25	7.48
MAX	13	20	18	20	30	26	30	62	46	16	2.4	15
MIN	5.7	10	13	10	16	22	23	22	.78	.03	.03	2.4
AC-FT	555	811	867	950	1140	1430	1540	2530	1120	116	15	445

CAL YR 1979 TOTAL 6684.63 MEAN 18.3 MAX 58 MIN .07 AC-FT 13260
WTR YR 1980 TOTAL 5809.16 MEAN 15.9 MAX 62 MIN .03 AC-FT 11520

06686000 NORTH PLATTE RIVER AT LISCO, NE
(National stream-quality accounting network station)

LOCATION.--Lat 41°29'18", long 102°37'25", in NW1/4SE1/4 sec.33, T.18 N., R.46 W., Garden County, Hydrologic Unit 10180009, near right bank on downstream side of pier of highway bridge, 0.5 mi (0.8 km) south of Lisco.

DRAINAGE AREA.--26,700 mi² (69,200 km²), approximately, of which about 24,700 mi² (64,000 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to September 1916, June to October 1917, September 1931 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,474.5 ft (1,059.03 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 8, 1931, nonrecording gage at present site at different datum and Sept. 8, 1931, to May 3, 1932, at present site at datum 1.0 ft (0.30 m) higher. May 4, 1932 to May 28, 1974, water-stage recorder at present site at datum 1.0 ft (0.30 m) higher.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,100 ft³/s (569 m³/s) June 27, 29, 1917, from graph based on daily gage readings, from rating curve extended above 15,000 ft³/s (425 m³/s); minimum daily, 8 ft³/s (0.23 m³/s) Aug. 4, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,480 ft³/s (127 m³/s) May 26, gage height, 3.57 ft (1.088 m); maximum gage height, 4.53 ft (1.381 m) Jan. 22, backwater from ice; minimum daily discharge, 510 ft³/s (14.4 m³/s) Aug. 7-9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1660	1520	600	1130	860	1470	1230	3550	2870	722	591	1160
2	1540	1410	760	1170	960	1410	1250	3520	2810	670	555	1220
3	1500	1410	940	1100	1040	1430	1200	3520	2740	640	537	1310
4	1520	1400	1100	1100	1120	1400	1280	3590	2640	620	546	1200
5	1520	1380	1300	1060	1200	1310	1330	3780	2440	670	546	1160
6	1500	1360	1450	880	1300	1280	1330	3840	2320	640	528	1100
7	1450	1360	1400	700	1300	1310	1310	3840	2400	582	510	1090
8	1400	1340	1300	540	1250	1300	1330	3780	2160	555	510	1090
9	1400	1330	1340	540	1250	1340	1230	3350	2200	660	510	1030
10	1450	1310	1330	700	1250	1360	1220	3490	2260	630	537	1070
11	1490	1280	1300	900	1200	1330	1380	3870	2260	885	537	1130
12	1500	1310	1250	1200	1120	1340	1490	4160	2440	969	591	1230
13	1450	1310	1200	1500	1160	1310	1580	3750	2100	894	610	1430
14	1430	1250	1190	1500	1200	1220	1660	3110	1840	834	620	1430
15	1470	1230	1160	1540	1250	1200	1680	2870	1700	799	650	1360
16	1520	1250	1200	1500	1250	1170	1640	2960	1860	810	700	1330
17	1560	1280	1300	1400	1250	1140	1880	2980	2020	788	834	1330
18	1540	1250	1400	1300	1250	1140	2280	3290	1880	722	930	1330
19	1520	1260	1300	1200	1300	1140	2500	3620	1980	686	969	1250
20	1500	1250	1160	1200	1330	1140	2660	3910	2240	660	969	1250
21	1600	1250	1220	1160	1560	1140	2890	3620	2320	650	969	1250
22	1560	1200	1230	1160	2200	1160	3010	3430	2400	722	956	1230
23	1490	1100	1200	1160	2180	1160	3010	3290	2340	711	906	1250
24	1410	1140	1160	1160	1800	1160	3060	3240	2100	670	882	1230
25	1360	1160	1160	1000	1640	1160	3080	3710	1700	650	943	1330
26	1340	1200	1190	1000	1600	1170	3180	4070	1450	700	995	1330
27	1310	1190	1250	900	1560	1190	3240	3550	1260	711	943	1410
28	1310	900	1300	860	1520	1300	3320	3410	995	711	1030	1520
29	1480	600	1260	860	1540	1170	3380	3410	870	690	1050	1660
30	1740	600	1160	860	---	1170	3490	3680	755	670	1050	1760
31	1680	---	1100	860	---	1170	---	3160	---	620	1100	---
TOTAL	46200	36830	37210	33140	39440	38690	63120	109350	61350	21935	23604	38470
MEAN	1490	1228	1200	1069	1360	1248	2104	3527	2045	708	761	1282
MAX	1740	1520	1450	1540	2200	1470	3490	4160	2870	969	1100	1760
MIN	1310	600	600	540	860	1140	1200	2870	755	555	510	1030
AC-FT	91640	73050	73810	65730	78230	76740	125200	216900	121700	43510	46820	76310

CAL YR 1979 TOTAL 406043 MEAN 1112 MAX 2340 MIN 264 AC-FT 805400
WTR YR 1980 TOTAL 549339 MEAN 1501 MAX 4160 MIN 510 AC-FT 1090000

06686000 NORTH PLATTE RIVER AT LISCO, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1970 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1970 to current year.
WATER TEMPERATURES: October 1970 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,100 micromhos Jan. 6, 1971; minimum daily, 275 micromhos Mar. 1, 1978.
WATER TEMPERATURES: Maximum, 31.0°C July 19, 1972; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,050 micromhos Nov. 29; minimum daily, 685 micromhos May 26.
WATER TEMPERATURES: Maximum, 29.0°C June 8; minimum, 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 23...	1115	1490	913	8.0	8.5	40	32	9.8	2.0	770	280
NOV 19...	1030	1250	898	8.2	6.0	20	12	11.1	1.8	K17	53
DEC 11...	1100	1290	937	8.2	2.0	40	21	11.9	.6	70	820
JAN 15...	1210	1580	860	8.0	1.0	25	12	10.6	1.9	30	840
FEB 20...	1040	1260	880	8.4	2.5	95	75	10.5	5.8	73	K10000
MAR 18...	1045	1160	928	8.4	8.5	25	16	11.1	4.9	K3	1300
APR 15...	1130	1690	832	8.5	12.5	65	60	9.6	3.0	53	480
MAY 28...	1000	3410	727	8.5	21.0	75	75	8.0	3.1	K233	620
JUN 17...	1100	2080	780	8.4	21.5	65	65	8.0	3.4	93	1100
JUL 22...	1100	729	835	8.6	24.0	150	230	6.2	3.3	1000	1300
AUG 19...	1000	982	820	8.0	17.5	140	230	9.1	3.1	870	1100
SEP 16...	1230	1380	864	7.9	13.5	60	70	9.3	5.6	280	2500

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
OCT 23...	280	38	80	19	92	2.4	11	240	210	21
NOV 19...	280	35	81	20	96	2.5	11	250	220	23
DEC 11...	280	25	81	20	91	2.3	10	260	170	22
JAN 15...	270	46	77	18	80	2.1	10	220	200	20
FEB 20...	270	21	77	19	88	2.3	10	250	180	20
MAR 18...	300	46	84	21	100	2.5	11	250	210	23
APR 15...	270	55	77	20	76	2.0	9.2	220	190	18
MAY 28...	240	53	66	19	68	1.9	7.1	190	170	14
JUN 17...	250	82	68	20	71	1.9	7.9	170	190	17
JUL 22...	280	50	79	20	86	2.2	10	230	180	26
AUG 19...	260	53	74	19	81	2.2	11	210	200	19
SEP 16...	260	28	72	19	84	2.3	11	230	190	19

06686000 NORTH PLATTE RIVER AT LISCO, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)
OCT 23...	.6	40	603	649	.82	2430	2.8	2.4	.01	.01
NOV 19...	.4	39	640	655	.87	2160	3.3	3.3	.03	.03
DEC 11...	.5	39	653	604	.89	2270	3.2	3.1	.07	.03
JAN 15...	.5	39	612	589	.83	2610	2.8	2.8	.04	.04
FEB 20...	.5	38	620	595	.84	2110	2.8	2.8	.04	.04
MAR 18...	.4	37	651	649	.89	2040	2.8	2.7	.00	.01
APR 15...	.5	.3	592	530	.81	2700	1.6	1.6	.02	.02
MAY 28...	.5	20	501	482	.68	4610	.68	.64	.09	.03
JUN 17...	.3	--	524	--	.71	2830	.94	.96	.04	.03
JUL 22...	.8	24	576	572	.78	1130	1.8	1.8	.01	.01
AUG 19...	.6	32	584	572	.79	1550	1.8	1.8	.00	--
SEP 16...	.5	33	579	580	.79	2160	2.4	2.4	.00	.01

DATE	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N) (00607)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N) (00624)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITROGEN, TOTAL (MG/L AS N) (00600)	NITROGEN, DISSOLVED (MG/L AS N) (00602)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
OCT 23...	.90	.59	.91	.31	.60	3.7	3.0	.150	.040	5.0
NOV 19...	.74	.59	.77	.15	.62	4.1	3.9	.090	.080	--
DEC 11...	1.1	.85	1.2	.32	.88	4.4	4.0	.160	.060	12
JAN 15...	.62	.58	.66	.04	.62	3.5	3.4	.110	.050	6.2
FEB 20...	2.3	1.7	2.3	.60	1.7	5.1	4.5	.430	.120	--
MAR 18...	.93	.90	.93	.02	.91	3.7	3.6	.140	.080	4.3
APR 15...	.98	.83	1.0	.15	.85	2.6	2.5	.250	.040	12
MAY 28...	1.3	.57	1.4	.80	.60	2.1	1.2	.920	.310	--
JUN 17...	1.3	1.1	1.3	.20	1.1	2.2	2.1	.210	.140	12
JUL 22...	2.0	1.9	2.0	.10	1.9	3.8	3.7	.520	.060	14
AUG 19...	2.2	--	2.2	.00	2.2	4.0	4.1	.480	.390	--
SEP 16...	1.2	.58	1.2	.61	.59	3.6	3.5	.220	.050	6.5

06686000 NORTH PLATTE RIVER AT LISCO, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ARSENIC SUS-PENDED TOTAL (UG/L AS AS) (01001)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA) (01006)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD) (01026)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR) (01031)
NOV 19...	1030	0	10	200	100	100	2	1	1	12	--
DEC 11...	1100	--	--	--	--	--	--	--	--	--	--
FEB 20...	1040	1	7	400	300	100	2	1	<1	10	10
MAR 18...	1045	--	--	--	--	--	--	--	--	--	--
MAY 28...	1000	1	8	200	100	100	1	0	1	0	0
JUN 17...	1100	--	--	--	--	--	--	--	--	--	--
AUG 19...	1000	1	9	300	200	100	1	--	--	10	10
SEP 16...	1230	--	--	--	--	--	--	--	--	--	--

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO) (01036)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU) (01041)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE) (01044)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)
NOV 19...	--	0	0	<3	8	7	1	1900	1900	10	5
DEC 11...	--	--	--	--	--	--	--	--	--	--	--
FEB 20...	0	5	2	<3	10	9	1	5700	5700	<10	9
MAR 18...	--	--	--	--	--	--	--	--	--	--	--
MAY 28...	0	5	5	0	28	16	12	6800	6800	20	28
JUN 17...	--	--	--	--	--	--	--	--	--	--	--
AUG 19...	0	5	--	<3	21	17	4	13000	12000	740	24
SEP 16...	--	--	--	--	--	--	--	--	--	--	--

DATE	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB) (01050)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN) (01054)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG) (71895)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI) (01066)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)
NOV 19...	5	0	20	10	6	.1	.1	.0	1	1	0
DEC 11...	--	--	--	--	--	--	--	--	--	--	--
FEB 20...	9	0	300	290	8	.1	.1	.0	5	4	1
MAR 18...	--	--	--	--	--	--	--	--	--	--	--
MAY 28...	26	2	310	280	30	.2	.2	.0	12	12	0
JUN 17...	--	--	--	--	--	--	--	--	--	--	--
AUG 19...	22	2	670	620	50	.1	--	--	13	13	0
SEP 16...	--	--	--	--	--	--	--	--	--	--	--

06686000 NORTH PLATTE RIVER AT LISCO, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE) (01146)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG) (01076)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN) (01091)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED (MG/L AS C) (00689)
NOV 19...	4	1	3	0	0	0	30	30	<3	13	.2
DEC 11...	--	--	--	0	--	--	--	--	--	--	--
FEB 20...	4	1	3	0	0	0	60	60	<3	16	.3
MAR 18...	--	--	--	0	--	--	--	--	--	--	--
MAY 28...	4	0	4	0	0	0	50	40	10	6.3	3.3
JUN 17...	--	--	--	0	--	--	--	--	--	--	--
AUG 19...	3	0	3	0	0	0	70	--	--	11	4.4
SEP 16...	--	--	--	0	--	--	--	--	--	--	--

DATE	TIME	PCB, TOTAL (UG/L) (39516)	ALDRIN, TOTAL (UG/L) (39330)	CHLORDANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DIAZINON, TOTAL (UG/L) (39570)	DIELDRIN TOTAL (UG/L) (39380)	ENDRIN, TOTAL (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	HEPTACHLOR, TOTAL (UG/L) (39410)
NOV 19...	1030	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 20...	1040	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

DATE	HEPTACHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	MALATHION, TOTAL (UG/L) (39530)	METHOXYCHLOR, TOTAL (UG/L) (39480)	METHYL PARATHION, TOTAL (UG/L) (39600)	METHYL TRITHION, TOTAL (UG/L) (39790)	PARATHION, TOTAL (UG/L) (39540)	TOXAPHENE, TOTAL (UG/L) (39400)	TOTAL TRITHION (UG/L) (39786)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)
NOV 19...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 20...	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--

06686000 NORTH PLATTE RIVER AT LISCO, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

DATE TIME	NOV 19,79 1030	MAR 18,80 1045	MAY 28,80 1000	JUN 17,80 1100
TOTAL CELLS/ML	15000	2300	4900	28000
DIVERSITY: DIVISION	0.8	0.5	0.7	1.5
.CLASS	0.8	0.5	0.7	1.5
..ORDER	0.8	1.4	1.5	2.0
...FAMILY	1.2	2.7	2.1	2.8
....GENUS	1.3	2.9	3.1	3.0

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	--	-	--	-	--	-	--	-
...COELASTRACEAE								
....COELASTRUM	--	-	65	3	--	-	2500	9
...MICRACTINIACEAE								
....GOLENKINIA	--	-	--	-	130	3	--	-
....MICRACTINIUM	*	0	--	-	150	3	1800	7
...OOCYSTACEAE								
....ANKISTRODESMUS	*	0	--	-	50	1	460	2
....CHLORELLA	--	-	16	1	130	3	460	2
....CHODATELLA	--	-	32	1	--	-	--	-
....CLOSTERIOPSIS	--	-	--	-	25	1	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	150	3	1500	5
....TREUBARIA	--	-	--	-	--	-	*	0
...SCENEDESMACEAE								
....ACTINASTRUM	--	-	--	-	--	-	--	-
....CRUCIGENIA	--	-	65	3	--	-	--	-
....SCENEDESMUS	--	-	65	3	--	-	3500	13
....TETRASTRUM	--	-	--	-	100	2	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	*	0	16	1	25	1	230	1
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	*	0	890#	38	730	15	8300#	30
....MELOSIRA	*	0	--	-	100	2	460	2
....STEPHANODISCUS	--	-	--	-	1300#	27	--	-
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	100	1	--	-	--	-	*	0
....COCCONEIS	100	1	16	1	--	-	--	-
....RHOICOSPHENIA	*	0	--	-	--	-	--	-
...CYMBELLACEAE								
....CYMBELLA	--	-	--	-	25	1	--	-
...DIATOMACEAE								
....DIATOMA	270	2	16	1	--	-	--	-
....OPEPHORA	*	0	--	-	--	-	--	-
...EUNOTIACEAE								
....EUNOTIA	--	-	16	1	--	-	--	-
...FRAGILARIACEAE								
....ASTERIONELLA	--	-	32	1	1100#	23	--	-
....FRAGILARIA	100	1	310	13	280	6	--	-
....SYNEDRA	--	-	81	3	50	1	--	-
...GOMPHONEMATACEAE								
....GOMPHONEMA	*	0	65	3	--	-	--	-
...NAVICULACEAE								
....NAVICULA	620	4	340	15	25	1	350	1
....PINNULARIA	--	-	--	-	--	-	--	-
...NITZSCHIACEAE								
....NITZSCHIA	620	4	260	11	450	9	1800	7
...SURIRELLACEAE								
....SURIRELLA	210	1	32	1	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOCHRYSIDACEAE								
....CHROOMONAS	--	-	--	-	--	-	--	-
...CRYPTOMONADACEAE								
....CRYPTOMONAS	*	0	--	-	25	1	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....AGMENELLUM	--	-	--	-	--	-	--	-
....ANACYSTIS	--	-	--	-	--	-	350	1
..HORMOGONALES								
...NOSTOCACEAE								
....APHANIZOMENON	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE								
....OSCILLATORIA	12000#	83	--	-	--	-	5500#	20
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....PHACUS	*	0	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06686000 NORTH PLATTE RIVER AT LISCO, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

DATE TIME	JUL 22,80 1100	AUG 19,80 1000	SEP 16,80 1230
TOTAL CELLS/ML	11000	33000	11000
DIVERSITY: DIVISION	1.2	0.8	1.5
.CLASS	1.2	0.8	1.5
..ORDER	1.5	1.2	2.1
...FAMILY	2.3	1.4	2.9
....GENUS	2.6	1.8	3.2

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...CHARACIACEAE						
....SCHROEDERIA	--	-	210	1	*	0
...COELASTRACEAE						
....COELASTRUM	--	-	--	-	330	3
...MICRACTINIACEAE						
....GOLENKINIA	--	-	--	-	--	-
....MICRACTINIUM	--	-	--	-	67	1
...OOCYSTACEAE						
....ANKISTRODESMUS	--	-	--	-	130	1
....CHLORELLA	--	-	--	-	--	-
....CHODATELLA	--	-	--	-	--	-
....CLOSTERIOPSIS	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	3900#	34
....KIRCHNERIELLA	--	-	420	1	--	-
....OOCYSTIS	310	3	--	-	--	-
....TREUBARIA	--	-	--	-	--	-
...SCENEDESMACEAE						
....ACTINASTRUM	420	4	--	-	--	-
....CRUCIGENIA	--	-	--	-	--	-
....SCENEDESMUS	3500#	33	5900#	18	970	9
....TETRASTRUM	--	-	--	-	--	-
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	--	-	840	3	470	4
CHRYSOPHYTA						
.BACILLARIOPHYCEAE						
..CENTRALES						
...COSCINODISCACEAE						
....CYCLOTELLA	520	5	1500	5	1700	15
....MELOSIRA	260	2	21000#	63	640	6
....STEPHANODISCUS	--	-	1100	3	--	-
..PENNALES						
...ACHNANTHACEAE						
....ACHNANTHES	160	1	--	-	--	-
....COCCONEIS	--	-	--	-	--	-
....RHOICOSPHENIA	--	-	--	-	--	-
...CYMBELLACEAE						
....CYMBELLA	--	-	--	-	--	-
...DIATOMACEAE						
....DIATOMA	--	-	--	-	*	0
....OPEPHORA	--	-	--	-	--	-
...EUNOTIACEAE						
....EUNOTIA	--	-	--	-	--	-
...FRAGILARIACEAE						
....ASTERIONELLA	--	-	--	-	--	-
....FRAGILARIA	1300	12	420	1	--	-
....SYNEDRA	*	0	--	-	*	0
...GOMPHONEMATACEAE						
....GOMPHONEMA	--	-	--	-	*	0
...NAVICULACEAE						
....NAVICULA	310	3	210	1	200	2
....PINNULARIA	*	0	--	-	--	-
...NITZSCHIACEAE						
....NITZSCHIA	3300#	31	1500	5	330	3
...SURIRELLACEAE						
....SURIRELLA	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)						
.CRYPTOPHYCEAE						
..CRYPTOMONADALES						
...CRYPTOCHRYSIDACEAE						
....CHROOMONAS	--	-	--	-	*	0
...CRYPTOMONADACEAE						
....CRYPTOMONAS	--	-	--	-	*	0
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..CHROOCOCCALES						
...CHROOCOCCACEAE						
....AGMENELLUM	--	-	--	-	1100	9
....ANACYSTIS	--	-	--	-	67	1
..HORMOGONALES						
...NOSTOCACEAE						
....APHANIZOMENON	--	-	--	-	600	5
...OSCILLATORIACEAE						
....OSCILLATORIA	520	5	--	-	640	6
EUGLENOPHYTA (EUGLENOIDS)						
.EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
....PHACUS	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06686000 NORTH PLATTE RIVER AT LISCO, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	LENGTH OF EXPO- SURE (DAYS) (00022)	BIOMASS CHLORO- PHYLL RATIO PERI- PHYTON (UNITS) (70950)	CHLOR-A PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70958)	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PERI- PHYTON BIOMASS ASH WEIGHT G/SQ M (00572)
NOV							
19...	1030	27	505	.950	1.03	5.20	4.72
FEB							
20...	1040	36	--	.000	.000	.160	.160
JUN							
17...	1100	28	1118	1.69	.130	8.82	6.93
JUL							
22...	1100	35	505	.950	1.03	8.82	6.93
AUG							
19...	1000	28	173	27.2	4.09	76.2	71.5

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)
JUL					
31...	1000	830	8.3	22.5	7.8
31...	1100	828	8.4	23.5	7.9
31...	1200	831	8.5	24.0	7.8
31...	1300	852	8.0	27.0	7.8
31...	1400	859	8.2	27.5	7.8
31...	1500	840	8.5	28.5	8.1
31...	1600	840	8.6	28.5	7.8
31...	1700	839	8.4	28.5	7.9
31...	1800	859	8.5	28.5	7.7
31...	1900	850	8.5	28.0	7.8
31...	2000	862	8.4	27.0	7.3
31...	2100	852	8.4	27.0	7.3
31...	2200	861	8.3	26.0	7.3
31...	2300	850	8.4	25.0	6.8
JUL					
31...	2400	861	8.2	24.5	6.9
AUG					
01...	0100	855	8.2	24.0	7.1
01...	0200	859	8.1	23.0	7.3
01...	0300	852	8.3	23.0	7.3
01...	0400	857	8.4	22.5	7.4
01...	0500	859	8.3	22.0	7.5
01...	0600	852	8.4	21.5	7.5
01...	0700	852	8.3	21.5	7.7
01...	0800	855	8.2	22.0	7.6
01...	0900	852	8.0	23.0	8.0
01...	1000	850	8.1	24.0	8.1

06686000 NORTH PLATTE RIVER AT LISCO, NE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	832	915	1040	928	865	880	840	714	718	842	798	825
2	859	918	987	911	932	898	875	707	745	829	835	838
3	885	877	978	900	947	895	878	718	740	848	831	812
4	880	898	842	889	857	889	878	705	745	852	808	828
5	879	898	840	900	854	886	922	717	757	859	865	837
6	885	886	852	980	889	915	878	718	760	865	868	825
7	885	905	886	1050	868	909	915	716	750	865	779	833
8	880	906	864	1040	872	911	928	715	765	835	817	848
9	850	895	909	1050	860	912	915	727	768	796	828	844
10	866	887	880	978	868	920	918	721	755	815	828	835
11	860	898	919	978	932	915	827	715	755	815	857	849
12	868	867	954	982	879	915	840	709	769	788	835	815
13	868	898	928	891	903	908	863	734	750	851	827	832
14	878	888	932	845	914	901	835	737	795	849	846	849
15	875	896	909	842	910	901	835	723	800	849	824	829
16	868	894	902	860	910	908	835	749	787	848	851	842
17	877	865	869	859	891	922	828	718	798	846	857	845
18	878	895	921	905	891	918	808	715	773	854	849	842
19	868	897	900	904	882	916	807	705	787	848	850	840
20	878	880	910	903	900	926	803	705	755	862	821	838
21	854	823	909	930	887	930	808	704	745	859	848	835
22	868	829	911	935	718	900	798	703	738	841	839	855
23	870	875	910	932	713	928	808	710	740	861	817	862
24	879	884	908	911	819	917	790	708	747	855	836	855
25	877	885	910	968	870	905	795	703	770	865	830	845
26	877	887	910	901	715	905	756	685	795	817	830	845
27	875	895	889	962	904	899	758	710	808	822	847	845
28	880	1000	890	961	900	888	750	718	830	851	847	847
29	876	1050	897	987	903	878	734	715	835	858	850	835
30	850	1050	903	982	---	887	737	728	823	875	850	829
31	867	---	940	992	---	895	---	726	---	858	853	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.0	1.0	.0	.0	3.0	2.0	7.0	13.0	18.0	21.0	25.0	17.0
2	15.0	3.0	1.0	.0	2.0	5.0	7.0	14.0	18.0	26.0	21.0	17.0
3	15.0	3.0	1.0	2.0	3.0	6.0	7.5	15.0	17.0	24.0	23.0	19.0
4	10.0	3.0	1.0	1.0	2.0	3.0	10.0	18.0	20.0	24.0	18.0	17.0
5	12.0	3.0	1.0	.0	1.0	3.0	7.0	15.0	20.0	25.0	20.0	17.0
6	12.0	3.0	2.0	.0	1.0	2.0	8.0	19.0	21.0	26.0	21.0	20.0
7	16.0	4.0	1.5	.0	1.0	3.0	10.0	13.0	19.0	28.0	20.0	20.0
8	12.0	2.0	4.0	.0	1.0	8.0	5.0	12.0	19.0	29.0	20.0	21.0
9	11.0	4.0	4.0	.0	1.0	7.0	6.0	12.0	18.0	23.0	20.0	19.0
10	9.0	4.0	4.0	.0	2.0	8.0	12.0	13.0	18.0	24.0	20.0	16.0
11	11.0	6.0	.0	.0	2.0	5.0	10.0	12.0	19.0	24.0	16.0	21.0
12	11.0	3.0	1.0	.0	3.0	5.0	8.0	10.0	22.0	23.0	25.0	19.0
13	11.0	3.0	1.0	.0	1.5	9.0	8.0	14.0	21.0	26.0	24.0	19.0
14	14.0	3.0	1.0	.0	2.0	8.0	13.0	12.0	22.0	24.0	19.0	19.0
15	16.0	7.0	1.0	.0	2.0	10.0	13.0	13.0	24.0	25.0	23.5	19.0
16	11.0	4.0	.0	.0	2.0	4.0	12.0	12.0	21.0	23.0	25.0	15.0
17	11.0	7.0	.0	.0	2.0	3.0	15.0	11.0	19.0	25.0	24.0	13.0
18	14.0	7.0	5.0	1.0	2.0	6.0	15.0	11.0	20.0	24.0	20.0	20.0
19	12.0	4.0	4.0	.0	3.0	7.0	14.0	13.0	20.0	23.0	21.0	20.0
20	10.0	4.0	4.0	.0	1.5	7.0	15.0	15.0	17.0	23.0	23.0	18.0
21	9.0	.0	4.0	.0	5.0	7.0	19.0	16.0	23.0	21.0	17.0	15.0
22	6.0	.0	5.0	1.0	5.0	6.0	19.0	16.0	22.0	21.0	20.0	15.0
23	8.0	.0	4.0	1.0	7.0	10.0	19.0	17.0	21.0	22.0	21.0	18.0
24	10.0	.0	3.0	3.0	7.0	6.0	15.0	18.0	22.0	22.0	24.0	17.0
25	11.0	2.0	4.0	2.0	8.0	6.0	11.0	15.0	23.0	22.0	22.0	14.0
26	11.0	2.0	2.0	2.0	9.0	8.5	12.0	17.0	25.0	22.0	22.5	14.0
27	10.0	.0	2.0	3.0	10.0	5.0	14.0	17.0	22.0	24.0	18.0	14.0
28	10.0	1.0	2.0	3.0	9.0	5.0	12.0	18.0	20.0	23.0	18.0	14.0
29	8.0	.0	2.0	3.0	3.0	7.0	15.0	18.0	21.0	29.0	22.0	18.0
30	3.0	.0	.0	1.0	---	7.0	14.0	18.0	23.0	27.0	18.0	15.0
31	4.0	---	.0	1.0	---	5.0	---	18.0	---	23.0	18.0	---

06686000 NORTH PLATTE RIVER AT LISCO, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE, WATER (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)
OCT 23...	1115	1490	8.5	346	1390	--	--
NOV 19...	1030	1250	6.0	285	962	--	--
DEC 11...	1100	1290	2.0	305	1060	--	--
JAN 15...	1210	1580	.1.0	223	951	--	--
FEB 20...	1040	1260	2.5	472	1610	--	--
MAR 18...	1045	1160	8.5	408	1280	--	--
APR 15...	1130	1690	12.5	788	3600	--	--
MAY 28...	1000	3410	21.0	570	5250	--	--
JUN 17...	1100	860	29.5	425	918	--	--
JUL 22...	1100	729	24.0	670	1320	41	55
AUG 19...	1000	982	17.5	2930	7770	--	--
SEP 16...	1230	1300	13.5	342	1270	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)
OCT 23...	--	--	--	--	--	--
NOV 19...	--	--	--	--	--	--
DEC 11...	--	30	69	85	99	100
JAN 15...	--	--	--	--	--	--
FEB 20...	--	28	34	40	47	97
MAR 18...	--	26	34	38	43	91
APR 15...	--	17	21	24	56	99
MAY 28...	--	44	56	76	96	100
JUN 17...	--	82	91	97	100	--
JUL 22...	82	93	98	100	--	--
AUG 19...	--	19	20	20	43	87
SEP 16...	--	73	90	94	99	100

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	NUMBER OF SAM-PLING POINTS (00063)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)
NOV 19...	1030	1250	5	--	0	9	38	65	80	94	99	100
FEB 20...	1040	1260	5	--	0	1	7	32	61	79	94	100
MAY 28...	1220	3410	5	0	1	4	17	53	73	90	98	100
AUG 19...	1000	982	5	--	0	6	34	72	87	97	100	--

06687000 BLUE CREEK NEAR LEWELLEN, NE

LOCATION.--Lat 41°20'07", long 102°10'21", in NE1/4 sec.30, T.16 N., R.42 W., Garden County, Hydrologic Unit 10180009, on right bank 130 ft (40 m) downstream from county highway bridge, 0.5 mi (0.8 km) downstream from bridge on U.S. Highway 26, 0.8 mi (1.3 km) upstream from mouth, and 1.5 mi (2.4 km) west of Lewellen.

DRAINAGE AREA.--1,190 mi² (3,082 km²), revised, approximately, of which about 80 mi² (207 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1930 to current year.

REVISED RECORDS.--WSP 1310: 1941(M). WDR NE-67: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,310.04 ft (1,008.900 m) National Geodetic Vertical Datum of 1929. See WSP 1918 for history of changes prior to Apr. 10, 1958.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--50 years, 69.4 ft³/s (1.965 m³/s), 50,280 acre-ft/yr (62.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 720 ft³/s (20.4 m³/s) May 20, 1938, gage height, 6.46 ft (1.969 m), present datum, from rating curve extended above 500 ft³/s (14.2 m³/s); maximum gage height, 6.93 ft (2.112 m), present datum, Dec. 21, 1945, backwater from ice; no flow for short periods in 1940, 1947, 1957, 1960-61, 1963, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 127 ft³/s (3.60 m³/s) Apr. 7, gage height, 3.95 ft (1.204 m); maximum gage height, 5.70 ft (1.737 m) Dec. 17, backwater from ice; minimum daily discharge, 0.07 ft³/s (0.002 m³/s) July 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	95	104	93	60	85	108	87	86	.57	.12	8.9
2	18	92	120	95	80	95	108	87	88	.48	.12	8.4
3	20	92	120	97	100	98	111	87	84	.24	.12	6.0
4	23	92	120	94	120	98	111	87	77	.15	.48	2.7
5	28	94	115	94	115	93	115	87	75	.12	1.3	3.3
6	33	94	115	86	114	94	118	91	74	.14	.48	8.4
7	32	95	122	70	113	97	122	90	69	.14	.15	8.9
8	34	95	120	66	109	98	122	87	67	.07	2.3	8.9
9	38	94	118	60	100	104	115	87	67	.10	1.5	10
10	46	91	120	80	101	103	109	90	61	.14	1.9	11
11	59	91	116	100	99	100	104	88	50	.12	2.7	10
12	58	91	110	120	98	98	98	91	49	.11	.90	11
13	63	91	108	120	99	95	97	92	66	.07	.29	11
14	69	91	110	110	98	97	97	86	52	.10	.29	13
15	69	91	111	110	94	98	97	82	46	.12	.90	14
16	72	91	94	99	88	98	95	91	42	.11	5.1	17
17	84	92	84	99	88	94	94	94	30	.11	11	5.1
18	87	92	94	99	97	98	95	87	24	.12	14	3.0
19	91	92	98	94	101	98	94	82	24	.17	13	18
20	99	94	98	94	116	97	93	84	26	.29	24	26
21	101	82	98	94	119	97	92	85	23	1.2	19	33
22	104	52	99	92	115	95	93	86	20	1.0	15	35
23	101	80	98	94	104	97	91	84	17	4.7	14	20
24	97	110	95	98	99	95	91	82	7.4	2.7	14	15
25	97	120	97	98	97	97	91	81	3.0	7.0	14	19
26	97	114	98	88	98	97	91	77	3.6	7.4	14	21
27	94	114	99	84	99	101	90	77	3.9	6.0	8.9	21
28	94	114	98	84	100	109	87	78	3.6	3.3	9.4	15
29	95	90	98	90	93	110	87	79	3.3	.15	3.3	14
30	103	100	95	70	---	110	86	91	1.3	.10	2.1	15
31	100	---	93	50	---	113	---	95	---	.14	4.7	---
TOTAL	2124	2826	3265	2822	2914	3059	3002	2672	1243.1	37.16	199.05	412.6
MEAN	68.5	94.2	105	91.0	100	98.7	100	86.2	41.4	1.20	6.42	13.8
MAX	104	120	122	120	120	113	122	95	88	7.4	24	35
MIN	18	52	84	50	60	85	86	77	1.3	.07	.12	2.7
AC-FT	4210	5610	6480	5600	5780	6070	5950	5300	2470	74	395	818

CAL YR 1979 TOTAL 26216.25 MEAN 71.8 MAX 390 MIN .43 AC-FT 52000
WTR YR 1980 TOTAL 24575.91 MEAN 67.1 MAX 122 MIN .07 AC-FT 48750

06687500 NORTH PLATTE RIVER AT LEWELLEN, NE

LOCATION.--Lat 41°18'37", long 102°09'00", in SE1/4NW1/4 sec.33, T.16 N., R.42 W., Garden County, Hydrologic Unit 10180009, on right bank 20 ft (9 m) upstream from county highway bridge, 1 mi (2 km) south of Lewellen, and approximately 1.5 mi (2.4 km) upstream from high-water line of Lake McConaughy.

DRAINAGE AREA.--28,600 mi^2 (74,100 km^2), approximately, of which about 25,400 mi^2 (65,800 km^2) contributes directly to surface runoff.

PERIOD OF RECORD.--July to September 1931, December 1940 to current year.

REVISED RECORDS.--WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,290.16 ft (1,002.841 m) National Geodetic Vertical Datum of 1929. July to September 1931 nonrecording gage near present site at different datum. December 1940 to Sept. 19, 1973, water-stage recorders on two channels at site 0.9 mi (1.4 km) downstream at datum approximately 6 ft (1.8 m) lower.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,500 ft^3/s (382 m^3/s) June 4, 1971; minimum daily, 44 ft^3/s (1.25 m^3/s) July 13, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,810 ft^3/s (136 m^3/s) May 26, gage height, 6.68 ft (2.036 m); maximum gage height, 8.25 ft (2.515 m) Jan. 1, backwater from ice; minimum daily discharge, 410 ft^3/s (11.6 m^3/s) Aug. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1650	1630	1050	940	900	1500	1370	3330	3510	802	498	1040
2	1630	1630	1350	900	1200	1450	1430	3300	3190	760	486	1100
3	1590	1650	1600	800	1500	1450	1480	3260	2930	774	450	1130
4	1590	1630	1900	700	2000	1550	1370	3350	2860	666	462	1130
5	1590	1650	2200	680	2100	1680	1460	3650	2700	690	486	1130
6	1570	1630	2000	640	1900	1590	1570	3960	2580	788	486	1100
7	1590	1500	1900	580	1700	1570	1650	4110	2580	690	440	1010
8	1570	1500	1990	580	1650	1570	1720	4110	2720	558	440	1040
9	1570	1480	1840	700	1600	1540	1630	4110	2430	594	430	1010
10	1520	1480	1770	1000	1500	1480	1480	3840	2460	704	430	1030
11	1480	1480	1540	1300	1500	1430	1500	3990	2400	642	410	1130
12	1520	1520	1370	1700	1600	1430	1680	4150	2460	806	420	1130
13	1480	1430	1370	2000	1600	1390	1740	4310	2310	774	486	1080
14	1520	1390	1370	2100	1600	1350	1650	3690	1910	690	510	1130
15	1590	1410	1350	2100	1600	1370	1770	3160	1610	678	570	1150
16	1610	1410	1300	2200	1500	1280	1890	3190	1620	704	666	1170
17	1610	1410	1500	2000	1450	1260	1860	3160	2370	704	718	1190
18	1680	1410	1800	1900	1450	1220	2120	3300	1990	690	788	1190
19	1680	1320	1800	1750	1500	1280	2430	3550	2010	666	878	1210
20	1540	1410	1700	1550	1700	1180	2580	3840	2580	642	1080	1190
21	1630	1400	1600	1400	2000	1160	2700	3920	2580	618	958	1150
22	1770	1250	1500	1300	2300	1240	2800	3580	2770	618	926	1210
23	1720	1200	1320	1250	2200	1200	2860	3470	2800	630	910	1230
24	1630	1200	1220	1250	2100	1180	3020	3370	2670	582	926	1330
25	1540	1100	1200	1160	2000	1180	3060	3260	2310	570	942	1310
26	1480	1040	1220	1100	1890	1280	3130	4340	1730	582	1040	1330
27	1390	960	1240	1000	1740	1350	3330	4340	1390	594	1030	1390
28	1320	860	1350	900	1680	1590	3400	3690	1120	594	1080	1520
29	1410	780	1350	800	1650	1670	3400	3740	958	594	1030	1570
30	1740	800	1200	720	---	1320	3260	3920	878	582	1080	1570
31	1790	---	972	740	---	1280	---	3990	---	534	1030	---
TOTAL	49000	40560	46872	37740	49110	43020	65340	114980	68426	20520	22086	35900
MEAN	1581	1352	1512	1217	1693	1388	2178	3709	2281	662	712	1197
MAX	1790	1650	2200	2200	2300	1680	3400	4340	3510	806	1080	1570
MIN	1320	780	972	580	900	1160	1370	3160	878	534	410	1010
AC-FT	97190	80450	92970	74860	97410	85330	129600	228100	135700	40700	43810	71210

CAL YR 1979 TOTAL 470270 MEAN 1288 MAX 2340 MIN 290 AC-FT 932800
WTR YR 1980 TOTAL 593554 MEAN 1622 MAX 4340 MIN 410 AC-FT 1177000

06690000 LAKE MCCONAUGHY NEAR KEYSTONE, NE

LOCATION.--Lat 41°12'45", long 101°40'03", in NW1/4SW1/4 sec.3, T.14 N., R.38 W., Keith County, Hydrologic Unit 10180014, near right bank at outlet tower of Kingsley Dam on North Platte River, 4.5 mi (7.2 km) west of Keystone.

DRAINAGE AREA.--29,300 mi^2 (75,900 km^2), approximately, of which about 25,800 mi^2 (66,800 km^2) contributes directly to surface runoff.

PERIOD OF RECORD.--February 1941 to current year.

GAGE.--Electric tape gage read once daily. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by earthfill dam; storage began Feb. 9, 1941. Capacity, 1,948,000 acre-ft (2.40 km^3) between elevations 3,130.0 ft (954.02 m), sill of outlet gates, and 3,270.0 ft (996.70 m), top of morning-glory spillway gates. Elevation of crest of morning-glory spillway is 3,254.0 ft (991.82 m). Dead storage negligible. Figures given herein represent total contents. Water is used for power development and irrigation in South-Central Nebraska by the Central Nebraska Public Power and Irrigation District.

COOPERATION.--Records of elevations and capacity table furnished by the Central Nebraska Public Power and Irrigation District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 1,920,000 acre-ft (2.37 km^3) July 12-16, 1971, elevation, 3,269.1 ft (996.42 m); minimum observed since operation of reservoir began, 32,860 acre-ft (40.5 hm^3) Sept. 29, 1941, elevation, 3,153.4 ft (961.16 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 1,799,000 acre-ft (2.22 km^3) June 25-26, elevation, 3,265.2 ft (995.23 m); minimum observed, 1,375,000 acre-ft (1.70 km^3) Oct. 1, elevation, 3,250.1 ft (990.63 m).

MONTHEND ELEVATION AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	3,250.0	1,372,000	-
Oct. 31	3,252.2	1,429,000	+57,000
Nov. 30	3,254.2	1,482,000	+53,000
Dec. 31	3,255.8	1,526,000	+44,000
CAL YR 1979	-	-	+296,000
Jan. 31	3,256.8	1,553,000	+27,000
Feb. 29	3,258.5	1,601,000	+48,000
Mar. 31	3,259.7	1,635,000	+34,000
Apr. 30	3,259.8	1,638,000	+3,000
May 31	3,264.1	1,765,000	+127,000
June 30	3,264.8	1,786,000	+21,000
July 31	3,257.1	1,562,000	-224,000
Aug. 31	3,251.5	1,411,000	-151,000
Sept. 30	3,251.4	1,408,000	-3,000
WTR YR 1980	-	-	+36,000

06690500 NORTH PLATTE RIVER NEAR KEYSTONE, NE

LOCATION.--Lat 41°12'30", long 101°37'50", in SW1/4 sec.1, T.14 N., R.38 W., Keith County, Hydrologic Unit 10180014, on right bank 0.2 mi (0.3 km) downstream from diversion dam of Sutherland Reservoir supply canal and 2.5 mi (4.0 km) southwest of Keystone.

DRAINAGE AREA.--29,300 mi² (75,900 km²), approximately, of which about 25,800 mi² (66,800 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June to August 1917, July to September 1939, May to September 1940, January to April 1941, March 1942 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1390: 1942, 1946-47. WSP 1630: 1958. WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,105.59 ft (946.584 m) National Geodetic Vertical Datum of 1929 (Nebraska Public Power District bench mark). See WSP 1918 for history of changes prior to May 1, 1964.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. Flow completely regulated by Lake McConaughy (station 06690000) since Feb. 9, 1941. Supply canal for Nebraska Public Power District diverts 0.2 mi (0.3 km) upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,300 ft³/s (575 m³/s) June 30, 1917, from graph based on daily gage readings; no flow for many days in 1975-80.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,630 ft³/s (103 m³/s) July 13, gage height, 6.40 ft (1.951 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	77	13	.00	.00	.00	.20	.00	1560	1250	2520	2470	242
2	75	9.3	.00	.00	.00	.00	.20	1420	1240	2200	2460	242
3	105	27	2.0	.00	.00	.00	11	1370	1050	2010	2450	252
4	66	88	.20	.00	.00	.00	3.6	1430	547	1990	2460	247
5	84	113	.00	.00	.00	.00	.60	1480	113	1990	2500	247
6	70	67	1.3	122	.00	.00	42	976	91	1980	2410	247
7	65	2.2	1.8	15	.00	.00	67	338	100	2420	2360	247
8	66	.60	.00	.40	.00	.00	85	356	95	2650	2400	247
9	72	.00	.00	.00	.00	.10	14	356	99	2440	2380	242
10	146	.00	.00	.00	.00	2.6	20	356	82	2380	2300	282
11	76	.00	.00	.00	.00	2.2	11	362	80	2410	2160	277
12	60	.00	.00	.00	.00	17	20	374	164	2520	2080	228
13	32	.00	1.4	.00	.00	31	21	368	393	2520	2030	224
14	29	.00	.20	.00	.00	10	11	362	637	2430	1890	224
15	38	.00	.00	.00	.00	12	24	368	678	2390	1480	187
16	24	.00	.00	.00	.00	15	215	374	691	2380	1090	150
17	7.6	.00	.00	.00	.00	19	307	368	691	2420	964	152
18	15	.00	.00	.00	.00	11	680	368	685	2430	931	150
19	.30	.00	.00	.00	.00	28	884	578	656	2420	878	152
20	6.8	.10	.00	.00	.00	14	1070	867	296	2390	791	155
21	.20	.40	.00	.00	.00	7.8	1270	1160	86	2350	526	150
22	13	1.0	.00	.00	.00	2.2	1390	1220	89	2360	262	147
23	.70	.30	.00	.00	.00	2.2	1610	1390	328	2360	298	147
24	.00	8.2	1.0	.00	1.0	1.0	1890	1560	597	2320	326	152
25	.00	2.6	2.6	.00	1.8	.10	1950	1600	708	2280	709	147
26	.00	.20	1.2	.00	3.0	.50	1900	1720	678	2280	1030	144
27	.00	2.8	.00	.00	3.6	3.6	1910	1520	735	2260	604	144
28	.00	8.0	.00	.00	2.6	6.6	1980	1370	743	2210	207	144
29	.00	2.2	.00	.00	1.0	1.4	1760	1370	1210	2220	211	85
30	.00	.00	.00	.00	---	.60	1660	1280	2050	2250	257	.70
31	54	---	.00	.00	---	.20	---	1280	---	2410	247	---
TOTAL	1182.60	345.90	11.70	137.40	13.00	188.30	20806.40	29501	16862	72190	43081	5654.70
MEAN	38.1	11.5	.38	4.43	.45	6.07	694	952	562	2329	1390	188
MAX	146	113	2.6	122	3.6	31	1950	1720	2050	2650	2500	282
MIN	.00	.00	.00	.00	.00	.00	.00	338	80	1980	207	.70
AC-FT	2350	686	23	273	26	373	41270	58520	33450	143200	85450	11220

CAL YR 1979 TOTAL 78115.45 MEAN 214 MAX 1870 MIN .00 AC-FT 154900
WTR YR 1980 TOTAL 189974.00 MEAN 519 MAX 2650 MIN .00 AC-FT 376800

PLATTE RIVER BASIN

06690500 NORTH PLATTE RIVER NEAR KEYSTONE, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1973 to January 1980 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	TEMPER-ATURE, WATER (DEG C) (00010)
OCT				
01...	1114	75	764	9.0
09...	1507	87	759	8.0
15...	0838	44	750	7.0
22...	1330	22	745	5.0
30...	1300	2.2	--	7.0
NOV				
02...	1213	24	769	.0
05...	1128	112	770	2.0

DATE	TIME	PH FIELD (UNITS) (00400)	COLOR (PLAT-INUM COBALT UNITS) (00080)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
OCT												
30...	1300	7.8	10	220	33	58	19	85	2.5	11	190	230

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
OCT											
30...	24	.5	29	573	3.40	.78	.27	.110	160	20	610

06691000 NORTH PLATTE RIVER NEAR SUTHERLAND, NE

LOCATION.--Lat 41°12'37", long 101°06'53", in sec.4, T.14 N., R.33 W., Lincoln County, Hydrologic Unit 10180014, on left bank 80 ft (24 m) downstream from bridge on county road, 2.5 mi (4.0 km) upstream from Birdwood Creek, and 3.5 mi (5.6 km) north of Sutherland.

DRAINAGE AREA.--29,800 mi^2 (77,200 km^2), approximately, of which about 26,120 mi^2 (67,700 km^2) contributes directly to surface runoff.

PERIOD OF RECORD.--June to October 1917, July 1931 to August 1933 (irrigation seasons only), May to September 1935, May 1936 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 976: 1942. WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 2,920 ft (890 m), from topographic map. Prior to Apr. 29, 1936, nonrecording gage near present site at different datums. Apr. 29, 1936, to Oct. 6, 1971, water-stage recorder at site 80 ft (24 m) upstream at present datum.

REMARKS.--Records good except those above 1,000 ft^3/s (28.3 m^3/s) and those for winter period, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,300 ft^3/s (575 m^3/s) June 29, 1917, from discharge graph based on daily gage readings, from rating curve extended above 16,000 ft^3/s (453 m^3/s); no flow July 24-28, 30, 31, 1931, Aug. 7, 1934, July 20-28, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,210 ft^3/s (62.6 m^3/s) Aug. 10, gage height, 3.41 ft (1.039 m); minimum daily, 65 ft^3/s (1.84 m^3/s) Jan. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	162	130	127	105	100	169	1650	1290	1420	1870	99
2	80	151	140	131	110	130	197	1540	1350	1820	1950	94
3	76	142	150	127	110	160	198	1470	1250	1760	1950	86
4	97	144	155	124	120	140	216	1490	977	1550	1920	81
5	128	199	170	120	125	135	249	1590	518	1520	1960	82
6	162	209	158	90	125	139	285	1670	215	1520	2000	83
7	158	199	151	65	120	136	326	1010	137	1480	1970	83
8	151	161	148	80	120	134	341	569	97	1660	1990	83
9	151	148	144	100	110	134	335	499	86	2000	2100	81
10	155	143	141	120	115	134	263	487	83	1980	2180	89
11	181	142	141	145	115	134	232	440	73	1970	2180	105
12	171	138	134	150	120	134	215	423	66	1990	2090	112
13	163	134	134	170	120	131	197	395	74	2120	1880	101
14	161	133	134	170	120	129	187	367	212	2140	1820	105
15	154	132	137	170	110	130	183	362	434	2130	1740	104
16	147	131	110	150	110	131	180	434	506	2090	1440	98
17	140	129	80	148	110	131	266	440	532	2020	1030	87
18	134	130	140	134	150	130	426	421	517	2030	844	81
19	137	127	150	130	150	134	668	412	682	2030	754	79
20	134	137	150	130	170	128	861	601	778	2000	676	78
21	145	135	148	125	194	124	1070	829	471	1950	596	76
22	169	135	144	120	174	120	1280	1110	295	1860	395	74
23	146	120	137	120	155	120	1400	1110	248	1820	180	70
24	135	130	134	125	140	127	1600	1350	289	1850	151	69
25	131	140	134	120	129	124	1810	1400	413	1850	114	69
26	130	140	134	115	126	131	1890	1480	451	1850	530	78
27	131	150	134	115	135	141	1920	1530	412	1880	826	157
28	131	125	134	100	133	130	1960	1410	367	1840	488	172
29	131	105	137	100	105	160	1900	1340	342	1810	167	181
30	143	120	137	100	---	192	1760	1340	831	1760	111	215
31	161	---	131	100	---	168	---	1300	---	1770	105	---
TOTAL	4304	4291	4301	3821	3726	4191	22504	30469	13956	57470	38007	2972
MEAN	139	143	139	123	128	135	753	983	465	1854	1226	99.1
MAX	181	209	170	170	194	192	1960	1670	1350	2140	2180	215
MIN	71	105	80	65	105	100	169	362	66	1420	105	69
AC-FT	8540	8510	8530	7580	7390	8310	44600	60440	27680	114000	75390	5890

CAL YR 1979 TOTAL 87748 MEAN 240 MAX 1590 MIN 56 AC-FT 174000
WTR YR 1980 TOTAL 190092 MEAN 519 MAX 2180 MIN 65 AC-FT 377000

06692000 BIRDWOOD CREEK NEAR HERSHEY, NE

LOCATION.--Lat 41°13'20", long 101°04'12", in NE1/4NW1/4 sec.2, T.14 N., R.33 W., Lincoln County, Hydrologic Unit 10180014, on left bank 60 ft (18 m) downstream from bridge on county road, 1 mi (2 km) upstream from mouth, and 5 mi (8 km) northwest of Hershey.

DRAINAGE AREA.--940 mi² (2,435 km²), approximately, of which about 80 mi² (207 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--May 1931 to current year.

REVISED RECORDS.--WSP 1390: 1948(M), 1949, 1951-52(M). WDR NE-67, WDR NE 76-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 2,920 ft (890 m), from topographic map. Jan. 1, 1931, to Dec. 16, 1934, nonrecording gage and Dec. 17, 1934, to Nov. 4, 1953, water-stage recorder, at site 50 ft (15 m) upstream at present datum.

REMARKS.--Records good. Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--49 years, 152 ft³/s (4.305 m³/s), 110,100 acre-ft/yr (0.136 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,770 ft³/s (50.1 m³/s) Apr. 1, 1949, gage height, 4.35 ft (1.326 m), from rating curve extended above 680 ft³/s (19.3 m³/s); maximum gage height, 5.12 ft (1.561 m) Dec. 15, 1940, backwater from ice; minimum daily discharge, 61 ft³/s (1.73 m³/s) Jan. 19, 1935, Apr. 7, 1938.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 232 ft³/s (6.57 m³/s) Feb. 20, gage height, 1.09 ft (0.332 m); maximum gage height, 3.30 ft (1.006 m) Jan. 9, backwater from ice; minimum daily discharge, 91 ft³/s (2.58 m³/s) June 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	126	142	133	151	150	143	174	150	126	92	92	117
2	125	143	132	152	170	152	170	159	175	92	92	117
3	125	142	136	150	143	152	170	153	126	95	92	122
4	125	146	132	150	149	157	166	151	114	94	92	123
5	126	148	135	151	150	151	172	147	108	95	92	117
6	126	151	130	150	146	156	168	149	111	96	92	117
7	127	154	128	120	150	158	168	156	112	96	93	113
8	127	163	128	110	134	162	154	154	113	95	102	111
9	126	160	132	100	134	169	147	154	114	95	106	111
10	127	153	133	140	127	163	153	161	117	94	114	109
11	126	153	130	180	129	151	146	157	114	95	110	114
12	130	153	130	180	128	153	139	163	117	94	106	118
13	142	159	132	170	128	150	136	163	118	109	106	116
14	137	153	134	165	128	155	136	152	116	108	107	125
15	135	153	135	146	122	159	144	150	114	108	112	129
16	135	152	130	146	126	165	141	150	117	105	123	133
17	137	155	130	145	128	152	134	142	116	102	117	128
18	134	150	145	144	151	153	138	143	112	104	117	127
19	134	149	148	143	161	165	138	149	112	101	115	132
20	134	149	146	143	179	160	142	150	113	100	116	132
21	136	156	149	143	163	151	139	149	110	96	108	131
22	132	158	150	148	160	153	139	146	120	95	104	130
23	132	166	149	144	154	152	134	144	118	95	107	125
24	137	150	148	149	157	154	136	145	117	95	108	126
25	138	150	151	150	149	161	135	146	116	97	109	129
26	137	146	150	129	149	160	142	144	132	97	125	124
27	139	145	154	140	152	158	144	144	127	95	129	128
28	139	144	151	138	152	176	146	145	100	95	128	127
29	139	139	154	148	146	186	152	159	95	93	133	129
30	140	138	154	149	---	168	149	137	91	92	130	129
31	140	---	150	120	---	173	---	127	---	92	122	---
TOTAL	4113	4520	4339	4494	4215	4918	4452	4639	3491	3012	3399	3689
MEAN	133	151	140	145	145	159	148	150	116	97.2	110	123
MAX	142	166	154	180	179	186	174	163	175	109	133	133
MIN	125	138	128	100	122	143	134	127	91	92	92	109
AC-FT	8160	8970	8610	8910	8360	9750	8830	9200	6920	5970	6740	7320

CAL YR 1979 TOTAL 53911 MEAN 148 MAX 212 MIN 105 AC-FT 106900
WTR YR 1980 TOTAL 49281 MEAN 135 MAX 186 MIN 91 AC-FT 97750

06693000 NORTH PLATTE RIVER AT NORTH PLATTE, NE

LOCATION.--Lat 41°09'13", long 100°45'16", in sec.28, T.14 N., R.30 W., Lincoln County, Hydrologic Unit 10180014, on right bank 150 ft (46 m) downstream from bridge on U.S. Highway 83, 0.5 mi (0.8 km) north of city of North Platte, and 4.5 mi (7.2 km) upstream from confluence with South Platte River.

DRAINAGE AREA.--30,900 mi² (80,000 km²), approximately, of which about 26,300 mi² (68,100 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--February 1895 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WDR NE-67, WDR NE-76-1: Drainage area. WSP 2118: 1915(M).

GAGE.--Water-stage recorder. Datum of gage is 2,792.14 ft (851.044 m) National Geodetic Vertical Datum of 1929 (Nebraska Department of Roads bench mark). See WSP 2118 for history of changes prior to June 3, 1968.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 29,600 ft³/s (838 m³/s) June 11, 1909, discharge measurement; minimum daily, 20 ft³/s (0.57 m³/s) Sept. 20, 1904.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,380 ft³/s (67.4 m³/s) Apr. 27, gage height, 4.82 ft (1.469 m); maximum gage height, 4.99 ft (1.521 m) Aug. 10, shifting control adjustment; minimum daily discharge, 220 ft³/s (6.23 m³/s) Jan. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	321	368	360	335	240	350	499	2100	1520	974	2080	440
2	330	366	400	340	240	300	538	2040	1610	1520	2070	404
3	328	369	420	341	300	400	585	1930	1520	1670	2070	353
4	337	376	440	348	310	450	663	1820	1300	1510	2070	318
5	366	440	470	353	320	420	762	1830	980	1420	2070	313
6	388	442	500	346	350	360	750	1860	544	1440	2070	342
7	414	457	512	220	380	362	765	1640	390	1410	2010	350
8	408	442	479	240	400	361	724	880	352	1430	1980	351
9	411	405	463	300	350	365	704	740	339	1790	2070	357
10	418	391	455	340	360	358	630	690	321	1930	2110	362
11	410	380	425	370	360	350	586	637	284	1880	2080	374
12	412	370	377	420	370	347	531	634	250	1830	2040	386
13	427	367	383	470	370	335	470	633	246	1880	1930	433
14	423	369	380	500	380	333	468	612	289	1990	1920	443
15	393	367	380	500	390	336	465	626	495	2010	2020	444
16	358	367	340	480	390	327	454	677	601	2000	2020	445
17	351	372	290	450	400	331	487	772	645	1980	1550	432
18	349	375	320	440	420	321	568	724	618	2000	1240	402
19	361	377	400	430	430	312	789	678	627	2020	1120	390
20	361	370	410	400	450	316	1040	672	792	2080	1030	383
21	392	350	380	380	450	319	1240	870	701	2130	919	370
22	468	330	365	380	500	313	1460	1130	464	2130	800	345
23	425	350	353	390	497	326	1630	1350	380	2140	520	364
24	401	380	347	380	443	329	1730	1350	332	2160	404	370
25	385	410	344	360	436	325	1990	1660	448	2160	300	357
26	366	410	339	350	436	337	2230	1640	552	2160	433	345
27	357	410	340	300	448	352	2310	1770	508	2170	939	370
28	363	350	341	290	450	420	2310	1760	471	2190	969	411
29	364	300	353	280	444	367	2300	1630	417	2130	636	397
30	368	330	353	280	---	403	2200	1600	483	2100	479	383
31	381	---	342	280	---	485	---	1540	---	2080	463	---
TOTAL	11836	11390	12061	11293	11314	11010	31878	38495	18479	58314	44412	11434
MEAN	382	380	389	364	390	355	1063	1242	616	1881	1433	381
MAX	468	457	512	500	500	485	2310	2100	1610	2190	2110	445
MIN	321	300	290	220	240	300	454	612	246	974	300	313
AC-FT	23480	22590	23920	22400	22440	21840	63230	76350	36650	115700	88090	22680

CAL YR 1979 TOTAL 167112 MEAN 458 MAX 1680 MIN 232 AC-FT 331500
WTR YR 1980 TOTAL 271916 MEAN 743 MAX 2310 MIN 220 AC-FT 539300

06762500 LODGEPOLE CREEK AT BUSHNELL, NE

LOCATION.--Lat 41°13'43", long 103°48'03", in sec.33, T.15 N., R.57 W., Kimball County, Hydrologic Unit 10190016, on right bank 1.5 mi (2.4 km) east of Bushnell and 1.5 mi (2.4 km) upstream from Oliver Reservoir.

DRAINAGE AREA.--1,361 mi² (3,525 km²).

PERIOD OF RECORD.--October 1931 to current year. Records for March to September 1931 at site 1.5 mi (2.4 km) upstream not equivalent owing to diversions. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1390: 1933, 1935, 1937-38, 1941, 1948-49. WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,812.3 ft (1,466.79 m) National Geodetic Vertical Datum of 1929. Prior to Mar. 26, 1938, nonrecording gage at present site and datum.

REMARKS.--Records good. Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas. Diversions for irrigation of about 12,600 acres (51.0 km²) above station.

AVERAGE DISCHARGE.--49 years, 11.0 ft³/s (0.312 m³/s), 7,970 acre-ft/yr (9.83 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,500 ft³/s (467 m³/s) Sept. 15, 1950, gage height, 9.98 ft (3.042 m), from rating curve extended above 2,700 ft³/s (76.5 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 0.09 ft³/s (0.003 m³/s) July 20, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 262 ft³/s (7.42 m³/s) Feb. 21, gage height, 4.48 ft (1.366 m); minimum daily, 0.10 ft³/s (0.003 m³/s) Aug. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	3.5	2.8	5.6	4.4	7.0	7.5	6.5	3.8	1.8	.75	1.2
2	4.0	3.7	3.2	5.3	4.8	7.7	7.5	6.1	3.7	1.8	.60	1.4
3	3.6	4.0	3.8	5.0	5.0	8.5	7.3	6.1	3.5	1.6	1.0	1.2
4	3.8	4.0	3.9	6.2	5.9	8.4	7.3	6.0	3.2	.85	.75	1.2
5	4.1	4.0	4.3	5.9	5.4	7.9	8.1	6.0	3.0	.60	1.4	1.4
6	4.3	4.2	5.2	6.1	5.4	8.0	8.5	6.7	2.4	.45	.85	1.4
7	4.0	4.2	5.1	2.9	5.7	8.0	8.2	6.5	2.4	.75	.45	1.6
8	4.5	4.0	5.1	4.6	5.1	7.7	7.7	6.3	2.8	3.8	.60	1.8
9	4.6	4.1	5.9	4.7	5.4	7.6	7.5	6.3	2.9	2.5	.45	2.0
10	4.7	3.9	6.4	4.7	5.8	7.4	7.5	6.3	2.9	2.0	.75	1.4
11	4.2	3.9	5.9	4.5	5.1	7.4	7.2	7.0	2.9	1.4	.45	1.2
12	4.3	3.5	5.3	4.4	5.1	7.4	7.0	7.1	2.9	1.2	.35	.85
13	4.1	3.8	5.3	7.0	5.2	7.0	7.0	6.5	2.9	1.4	.20	1.4
14	4.4	3.5	6.2	5.7	4.8	7.1	6.9	6.3	2.7	1.9	.10	1.4
15	3.8	3.7	6.2	5.7	4.8	7.1	6.8	6.9	2.5	2.4	1.0	1.2
16	4.1	3.8	5.0	5.6	4.5	7.1	6.6	7.0	2.5	2.3	2.2	1.6
17	4.1	3.9	5.9	5.4	5.1	6.9	6.6	6.5	2.7	2.1	.85	1.8
18	4.6	4.0	6.2	5.4	5.1	7.1	6.6	6.4	2.7	2.2	1.4	1.5
19	4.3	3.9	5.9	5.0	5.6	7.0	6.6	6.0	2.7	2.2	.20	1.2
20	3.8	3.9	5.6	5.6	5.9	6.8	6.6	6.0	2.6	3.6	1.4	1.6
21	4.6	3.5	6.2	5.2	93	6.9	6.6	5.3	2.9	2.1	1.0	2.1
22	3.9	3.5	5.3	4.9	62	6.5	6.6	5.3	2.7	1.8	1.6	2.4
23	3.7	3.5	5.3	5.7	48	6.8	6.6	5.1	2.7	1.4	1.2	2.5
24	3.5	3.7	5.3	6.3	7.4	6.8	6.6	5.3	2.0	1.2	1.4	2.2
25	3.5	.40	5.3	4.6	7.4	7.0	6.7	5.0	1.8	1.4	1.6	2.9
26	3.4	1.2	5.3	4.2	7.4	7.4	6.4	5.2	1.8	2.9	1.6	3.0
27	3.4	2.4	5.6	5.4	7.7	7.1	6.5	5.1	2.0	1.6	1.2	3.0
28	3.7	2.4	5.0	5.0	7.3	6.9	6.2	5.0	1.8	1.2	.75	3.0
29	4.1	2.4	4.7	5.3	6.9	7.5	6.3	4.2	1.6	.85	.60	2.6
30	4.3	2.3	4.2	4.0	---	7.5	6.5	4.3	1.8	1.0	.45	2.1
31	3.7	---	4.2	4.0	---	7.5	---	4.0	---	1.0	.75	---
TOTAL	125.0	102.80	159.6	159.9	351.2	227.0	210.0	182.3	78.8	53.30	27.90	54.15
MEAN	4.03	3.43	5.15	5.16	12.1	7.32	7.00	5.88	2.63	1.72	.90	1.81
MAX	4.7	4.2	6.4	7.0	93	8.5	8.5	7.1	3.8	3.8	2.2	3.0
MIN	3.4	.40	2.8	2.9	4.4	6.5	6.2	4.0	1.6	.45	.10	.85
AC-FT	248	204	317	317	697	450	417	362	156	106	55	107

CAL YR 1979 TOTAL 1942.80 MEAN 5.32 MAX 57 MIN .40 AC-FT 3850
WTR YR 1980 TOTAL 1731.95 MEAN 4.73 MAX 93 MIN .10 AC-FT 3440

06762550 LODGEPOLE CREEK AT KIMBALL, NE

LOCATION.--Lat 41°14'50", long 103°38'32", in NW1/4SW1/4NW1/4 sec.28, T.15 N., R.55 W., Kimball County, Hydrologic Unit 10190016, at bridge on county road 0.8 mi (1.3 km) north of U.S. Highway 30 at east edge of Kimball.

PERIOD OF RECORD.--Water year 1973 to September 1980 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 22...	1330	6.7	560	8.3	9.5	60	9.8	7.0	52000	5200
DEC 10...	1300	4.2	570	7.8	1.0	40	9.2	6.6	180000	14000
JAN 14...	1300	12	498	7.9	2.0	25	10.3	11	67000	24000
FEB 19...	1300	17	480	8.0	1.0	50	10.5	7.0	40000	28000
MAR 17...	1300	8.7	557	8.4	7.0	35	11.9	9.3	11000	5600
APR 14...	1230	11	540	8.7	12.0	40	11.5	5.0	46000	12000
MAY 19...	1215	10	540	8.6	16.5	35	9.0	13	44000	4800
JUN 16...	1250	1.3	1010	8.3	15.0	15	5.4	10	K10000	9500
JUL 21...	1330	1.2	670	8.5	25.5	20	9.0	11	K650000	13000
AUG 18...	1240	.42	950	8.5	26.0	10	9.2	22	350000	3000
SEP 15...	1300	.45	700	7.9	24.0	25	6.1	14	36000	2700

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT 22...	27	408	.55	7.38	2.5	.91	1.7	2.6	5.1	.730
DEC 10...	27	393	.53	4.48	2.5	1.9	.80	2.7	5.2	.060
JAN 14...	26	348	.47	11.7	1.5	.80	1.1	1.9	3.4	.760
FEB 19...	28	343	.47	15.8	2.2	.58	2.1	2.7	4.9	.790
MAR 17...	27	387	.53	9.11	2.2	.69	1.6	2.3	4.5	.450
APR 14...	25	375	.51	12.0	.05	.00	3.1	3.1	3.2	.470
MAY 19...	25	372	.51	10.9	1.9	.73	1.5	2.2	4.1	.470
JUN 16...	140	580	.79	2.04	.83	10	2.0	12	13	4.300
JUL 21...	55	431	.59	1.40	2.9	5.4	2.4	7.8	11	4.200
AUG 18...	120	541	.74	.61	2.8	1.1	13	14	17	5.200
SEP 15...	59	475	.65	.58	1.2	6.4	7.6	14	15	7.900

06762550 LODGEPOLE CREEK AT KIMBALL, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLOR (PLAT-INUM COBALT UNITS) (00080)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
FEB											
19...	1300	5	210	22	60	15	37	1.1	7.0	190	37
MAY											
19...	1215	5	210	14	61	15	32	1.0	7.6	200	42
AUG											
18...	1240	30	210	24	61	15	97	2.9	17	190	49

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)
FEB										
19...	.7	43	393	2.2	.330	--	--	90	--	--
MAY										
19...	.8	44	357	1.9	.320	9	200	120	2	0
AUG										
18...	.7	42	529	2.8	4.900	--	--	240	--	--

DATE	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG) (71895)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
FEB										
19...	--	30	--	10	--	--	--	--	--	--
MAY										
19...	11	110	0	30	.2	.1	.1	2	0	<3
AUG										
18...	--	30	--	20	--	--	--	--	--	--

06764000 SOUTH PLATTE RIVER AT JULESBURG, CO

LOCATION.--Lat 40°58'46", long 102°15'15", in NW1/4NE1/4 and SE1/4NE1/4 (two channels) sec.33, T.12 N., R.44 W., Sedgwick County, Hydrologic Unit 10190018, on left bank of channel no. 4 (left channel) 215 ft (66 m) downstream from bridge, and on right bank of channel no. 2, 800 ft (244 m) downstream from bridge on U.S. Highway 385, 0.9 mi (1.4 km) southeast of Julesburg, 3.0 mi (4.8 km) upstream from Colorado-Nebraska State line, and 8 mi (13 km) downstream from Lodgepole Creek.

DRAINAGE AREA.--23,138 mi² (59,927 km²).

PERIOD OF RECORD.--April 1902 to current year. Monthly discharge only for some periods, published in WSP 1310. Published as "near Julesburg" 1903-08, 1915-16, and as "at Ovid" 1922-24.

REVISED RECORDS.--WSP 1310: 1902, 1906-07, 1948(P). WSP 1440: 1903-04. WSP 1730: Drainage area.

GAGE.--Two water-stage recorders. Datum of gages is 3,446.76 ft (1,050.572 m) National Geodetic Vertical Datum of 1929. See WSP 1710 or 1730 for history of changes prior to Oct. 14, 1956. Since Oct. 1, 1956, water-stage recorders on channels nos. 2 and 4. Channel no. 2: Oct. 1, 1956, to Sept. 22, 1965, at site 300 ft (90 m) downstream at present datum. Channel no. 4: Oct. 1, 1956, to Dec. 10, 1958, at site 135 ft (41.1 m) downstream at present datum. Since May 11, 1973, supplementary water-stage recorder on channel no. 2 at bridge 800 ft (240 m) upstream at same datum.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation of 1,200,000 acres (4,860 km²) above station, and return flow from irrigated areas.

COOPERATION.-- Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--78 years, 493 ft³/s (13.96 m³/s), 357,200 acre-ft/yr (0.440 km³/yr).

EXTREMES FOR PERIOD OF RECORD.-- Maximum discharge, 37,600 ft³/s (1,060 m³/s) June 20, 1965, gage height, 10.44 ft (3.182 m), from floodmarks in gage well; no flow Aug. 18-20, 1902, July 25 to Aug 7, 1903.

EXTREMES FOR CURRENT YEAR.-- Maximum discharge, 13,200 ft³/s (374 m³/s) May 21 at 0500, gage height, 8.59 ft (2.618 m); minimum daily, 30 ft³/s (0.85 m³/s) Aug. 11, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	164	418	560	1040	730	1730	1310	5440	8220	624	47	37
2	185	439	520	988	810	1770	1450	5250	7790	532	43	38
3	195	474	540	1030	900	1750	1590	5190	7310	475	40	38
4	213	511	520	1050	840	1680	1700	5710	6890	386	41	64
5	238	540	700	1040	1150	1620	2110	6870	6500	262	42	130
6	216	565	1080	1080	1420	1640	2470	11400	6100	187	42	163
7	215	533	1060	1080	1770	1710	2540	12500	5610	151	37	208
8	215	531	910	1060	1850	1750	2330	12100	5250	131	39	241
9	220	524	830	998	1800	1860	1980	11500	4970	117	36	236
10	232	536	720	980	1850	1950	1810	11200	4850	102	34	224
11	244	543	680	1080	1750	1840	1680	10900	4760	89	30	216
12	241	549	650	1090	1600	1800	1610	10800	4680	77	36	194
13	238	543	630	1140	1500	1730	1650	10900	4720	69	31	192
14	238	543	630	1170	1550	1660	1660	10200	4820	64	35	182
15	238	535	610	1250	1600	1620	1660	9610	4850	58	40	205
16	244	524	620	1230	1650	1610	1600	10100	5000	57	34	236
17	251	531	730	1130	1700	1520	1540	10800	5050	57	32	239
18	261	541	1000	1200	1900	1410	1660	10800	4370	64	31	219
19	261	538	1110	1200	2100	1300	1820	10600	3760	60	30	206
20	269	552	1060	1280	2530	1170	1790	11600	3650	55	33	189
21	294	503	1000	1270	2600	1110	1770	12800	3430	53	33	185
22	306	480	960	1300	2200	1090	1770	12300	2870	53	32	188
23	314	470	990	1240	2100	1090	1940	11500	2550	52	31	200
24	330	480	930	1220	1990	1120	2040	10800	2270	52	32	213
25	341	610	896	1260	1870	1080	2060	10300	1990	54	33	201
26	351	640	850	1260	1800	1060	2200	9760	1720	58	35	181
27	388	650	873	1310	1790	1070	2920	9540	1370	54	39	168
28	404	660	886	1340	1850	1110	3960	9530	1080	52	41	153
29	398	620	921	1240	1750	1010	5150	9510	874	54	36	141
30	413	590	926	790	---	1000	5580	9310	736	59	36	129
31	417	---	1080	700	---	1130	---	8750	---	51	35	---
TOTAL	8534	16173	25472	35046	48950	44990	65350	307570	128040	4209	1116	5216
MEAN	275	539	822	1131	1688	1451	2178	9922	4268	136	36.0	174
MAX	417	660	1110	1340	2600	1950	5580	12800	8220	624	47	241
MIN	164	418	520	700	730	1000	1310	5190	736	51	30	37
AC-FT	16930	32080	50520	69510	97090	89240	129600	610100	254000	8350	2210	10350

CAL YR 1979 TOTAL 281174 MEAN 770 MAX 7650 MIN 34 AC-FT 557700
WTR YR 1980 TOTAL 690666 MEAN 1887 MAX 12800 MIN 30 AC-FT 1370000

06764880 SOUTH PLATTE RIVER AT ROSCOE, NE

LOCATION.--Lat 41°07'33", long 101°34'35", in NW1/4SW1/4 sec.4, T.13 N., R.37 W., Keith County, Hydrologic Unit 10190018, at bridge on access road between U.S. Highway 30 and Interstate 80, about 0.5 mi (0.8 km) southeast of Roscoe.

PERIOD OF RECORD.--July 1975 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 30...	1200	401	1890	8.2	5.0	45	10.6	5.6	730	300
NOV 26...	1130	435	2050	8.1	1.0	30	11.8	1.9	600	360
DEC 17...	1200	515	2000	8.1	.5	20	10.7	4.4	250	110
JAN 29...	1130	410	1750	8.0	.5	8	10.3	3.9	200	230
FEB 26...	1230	3260	1420	8.3	2.5	250	10.2	9.2	220	K10000
MAR 25...	1130	1370	1560	8.3	7.0	70	11.1	3.0	1400	140
APR 21...	1030	2280	1500	8.5	17.5	90	8.9	3.2	K2100	180
MAY 20...	0930	10300	930	8.2	16.0	160	8.2	4.6	K1600	K3600
JUN 23...	0930	2830	1010	8.4	24.5	75	7.2	4.0	180	330
JUL 29...	0800	38	1320	8.3	21.0	8	8.5	3.2	--	800
AUG 26...	1100	13	1230	8.3	18.5	8	10.0	2.2	K2400	920
SEP 22...	1100	135	1530	8.6	16.5	25	10.3	9.7	300	210

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT 30...	83	1580	2.15	1710	2.3	.07	1.3	1.4	3.7	.240
NOV 26...	75	1480	2.01	1740	3.3	.21	.79	1.0	4.3	.270
DEC 17...	86	1640	2.23	2280	4.4	.40	.90.	1.3	5.7	.390
JAN 29...	54	1320	1.80	1460	3.2	.24	.56	.80	4.0	.480
FEB 26...	65	1070	1.46	9420	3.8	.11	7.9	8.0	12	1.900
MAR 25...	74	1380	1.88	5110	4.1	.26	1.6	1.9	6.0	.720
APR 21...	63	1110	1.51	6830	3.2	.04	2.0	2.0	5.2	.800
MAY 20...	33	665	.90	18500	1.2	.07	1.8	1.9	3.1	.530
JUN 23...	39	775	1.05	5920	1.8	.05	1.4	1.4	3.2	.410
JUL 29...	53	884	1.20	90.7	.11	.01	.96	.97	1.1	.160
AUG 26...	59	898	1.22	31.5	.13	.19	1.1	1.3	1.4	.370
SEP 22...	79	1350	1.84	492	.00	.00	1.8	1.8	1.8	.170

06764880 SOUTH PLATTE RIVER AT ROSCOE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLOR (PLAT-INUM COBALT UNITS) (00080)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
NOV 26...	1130	5	660	420	170	58	170	2.9	12	240	710
FEB 26...	1230	1000	490	300	120	45	130	2.6	11	190	510
MAY 20...	0930	20	310	180	77	28	79	2.0	7.3	130	310
AUG 26...	1100	10	410	230	100	38	120	2.6	12	180	420

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)
NOV 26...	.9	19	1370	3.0	.230	5	80	310	<1	20
FEB 26...	1.1	16	1030	3.8	.450	--	--	240	--	--
MAY 20...	.8	15	634	1.2	.150	6	80	170	1	0
AUG 26...	.9	21	880	.13	.350	--	--	270	--	--

DATE	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG) (71895)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV 26...	7	<10	2	60	.1	.1	.0	4	0	10
FEB 26...	--	20	--	7	--	--	--	--	--	--
MAY 20...	10	20	0	20	.2	.1	.1	2	0	<3
AUG 26...	--	50	--	80	--	--	--	--	--	--

06765500 SOUTH PLATTE RIVER AT NORTH PLATTE, NE

LOCATION.--Lat 41°07'05", long 100°46'22", in NE1/4SE1/4 sec.8, T.13 N., R.30 W., Lincoln County, Hydrologic Unit 10190018, on left bank 0.5 mi (0.8 km) upstream from bridge on U.S. Highway 83, 0.7 mi (1.1 km) northwest of intersection of U.S. Highway 83 and Interstate 80 south of North Platte, and 5.5 mi (8.8 km) upstream from confluence with North Platte River.

DRAINAGE AREA.--24,300 mi² (62,900 km²), approximately.

PERIOD OF RECORD.--June to November 1897, June to August 1914, May to September 1915, and May 1917 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1390: 1932-33, 1935.

GAGE.--Water-stage recorder. Datum of gage is 2,787.73 ft (849.700 m) National Geodetic Vertical Datum of 1929. See WSP 1918 for history of changes prior to Dec. 11, 1956. Dec. 11, 1956, to Mar. 29, 1973, at site 0.5 mi (0.8 km) downstream at same datum.

REMARKS.--Records good except those for winter period or no gage height record, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. South Platte canal diverts around station; diversion began Nov. 13, 1946.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 37,100 ft³/s (1,050 m³/s) June 3, 1935, gage height, 14.02 ft (4.273 m), present datum; no flow at times in summers of most years prior to 1938.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,500 ft³/s (382 m³/s) May 22, gage height, 11.43 ft (3.484 m); minimum daily, 96 ft³/s (2.72 m³/s) Nov. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	145	135	145	241	289	1340	1340	3100	8360	676	152	123
2	150	140	145	207	259	1640	1400	3610	7820	604	149	121
3	145	148	160	201	248	2180	1580	3520	7050	639	152	145
4	142	148	170	207	252	2120	1710	3370	6620	587	145	139
5	137	162	180	207	289	1710	1790	3390	6220	493	142	126
6	140	156	200	238	330	1420	1920	3730	5820	397	145	126
7	137	150	210	248	406	1160	2220	4800	5560	325	149	132
8	135	148	220	248	476	926	2540	9350	5050	294	139	112
9	135	142	230	274	713	857	2660	9920	4570	275	149	121
10	140	148	238	252	934	814	2550	9590	4220	244	156	129
11	137	145	256	252	974	807	2320	9140	4040	234	160	149
12	137	142	256	267	910	814	2160	8940	3890	221	149	172
13	132	142	224	234	926	758	2030	8700	3610	216	129	152
14	132	142	198	325	934	706	1950	9270	3390	212	139	156
15	132	145	195	523	880	646	1960	8670	3380	212	181	172
16	132	145	198	850	814	599	1950	7900	3390	212	212	181
17	132	145	201	934	745	544	1980	7980	3500	208	196	181
18	135	142	208	872	745	502	1940	8860	3690	196	185	185
19	140	142	274	739	772	456	1910	9270	3500	176	176	189
20	145	148	204	688	990	512	2000	8940	3030	168	164	204
21	150	137	179	582	1490	588	2180	9100	2680	172	160	212
22	153	96	185	594	1720	664	2160	11700	2570	152	152	204
23	148	98	204	577	1960	700	2030	12200	2280	152	135	196
24	153	112	207	523	2160	765	1850	11500	1850	152	115	181
25	145	135	217	528	2220	880	1750	9970	1660	145	123	176
26	132	135	224	500	2260	982	1600	9410	1580	152	152	192
27	132	140	259	500	2180	1090	1460	8780	1420	160	152	204
28	132	145	285	480	2030	1220	1360	8580	1250	164	152	204
29	132	130	297	430	1560	1220	1620	8590	1040	152	160	196
30	135	125	301	320	---	1060	2240	8940	839	145	135	196
31	137	---	293	295	---	1310	---	8940	---	149	123	---
TOTAL	4309	4168	6763	13336	30554	30990	58120	249760	113879	8284	4728	4976
MEAN	139	139	218	430	1054	1000	1937	8057	3796	267	153	166
MAX	153	162	301	934	2260	2180	2660	12200	8360	676	212	212
MIN	132	96	145	201	248	456	1340	3100	839	145	115	112
AC-FT	8550	8270	13410	26450	60600	61470	115300	495400	225900	16430	9380	9870

CAL YR 1979 TOTAL 166123 MEAN 455 MAX 7150 MIN 84 AC-FT 329500
WTR YR 1980 TOTAL 529867 MEAN 1448 MAX 12200 MIN 96 AC-FT 1051000

06766000 PLATTE RIVER AT BRADY, NE

LOCATION.--Lat 41°01'10", long 100°22'16" (north channel only), on two channels in secs.11 and 23, T.12 N., R.27 W., Lincoln County, Hydrologic Unit 10200101, on downstream side of highway bridges 0.5 mi (0.8 km) and 2.5 mi (4.0 km), respectively, south of Brady and 18 mi (29 km) downstream from confluence of North Platte and South Platte Rivers.

DRAINAGE AREA.--56,200 mi² (145,600 km²), approximately, of which about 51,400 mi² (133,100 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--May to September 1937, May 1938 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1390: 1941(M). WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Two water-stage recorders. Datum of gage on north channel is 2,639.19 ft (804.425 m) and on south channel, 2,641.66 ft (805.178 m) National Geodetic Vertical Datum of 1929. No information available on gages operated by State engineer prior to Nov. 18, 1938. Nov. 18, 1938 to Sept. 30, 1942, gage on north channel at datum 1 ft (0.3 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. Tri-County main supply canal, capacity, about 2,000 ft³/s (56.6 m³/s), diverts 18 mi (29 km) above station; diversion started Nov. 26, 1940. River flows in two channels for which separate records are computed; figures given herein represent combined discharge.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,600 ft³/s (527 m³/s) May 14, 1973; no flow Aug. 22-24, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 14,300 ft³/s (405 m³/s) May 23; minimum daily, 94 ft³/s (2.66 m³/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94	140	145	179	240	880	995	5190	11000	1100	2170	146
2	106	135	157	148	255	1080	1210	5870	10500	1510	2190	134
3	107	134	167	126	265	1530	1960	5870	9950	2000	2120	155
4	103	134	178	142	274	1780	2380	5520	8950	1850	2120	182
5	103	178	193	119	284	1400	2670	5350	8030	1620	2110	182
6	100	208	176	95	274	1100	3080	5720	7100	1590	2130	169
7	97	182	174	113	275	976	3300	6450	6360	1530	2130	171
8	109	219	174	108	268	833	3590	8520	5820	1610	2030	181
9	112	188	174	158	262	715	3160	11200	5230	1680	2100	205
10	107	183	167	168	368	639	3150	10900	4750	1900	2120	187
11	102	166	154	180	515	425	3390	10700	4330	1940	2080	182
12	104	159	122	204	511	553	3120	10400	4140	1970	1960	179
13	102	159	136	238	517	633	2900	10100	3720	1980	1820	186
14	105	153	153	268	515	545	2700	9820	3300	2020	1790	190
15	107	150	162	290	514	510	2390	10000	3220	2050	1820	190
16	110	161	158	320	523	451	2420	9220	3420	2000	1970	184
17	111	185	150	338	522	351	2480	8860	3750	1990	1600	175
18	115	154	194	368	538	231	2520	9520	3930	1970	1000	174
19	119	148	272	390	542	211	2660	10500	3810	1990	758	172
20	119	156	321	417	690	201	2810	10800	3230	2050	623	172
21	130	141	252	438	1140	196	3180	10500	2850	2030	581	166
22	162	117	230	466	1430	196	3430	12100	2310	1980	513	166
23	148	131	187	486	1610	186	3550	14100	1320	2020	392	145
24	158	172	192	488	1700	229	3600	13700	665	2020	264	134
25	154	162	173	452	1800	254	3700	13100	861	2040	428	134
26	147	155	140	368	1840	355	3880	12300	1170	2050	337	134
27	139	152	131	330	1840	472	3860	11600	1380	2050	474	136
28	134	157	139	340	1760	629	3770	10900	1210	2090	712	134
29	134	155	177	310	1240	634	3820	10700	1030	2030	581	134
30	138	145	194	280	---	481	4360	11000	972	2050	319	136
31	155	---	182	235	---	542	---	11200	---	2110	174	---
TOTAL	3731	4779	5524	8562	22512	19218	90035	301710	128308	58820	41416	4935
MEAN	120	159	178	276	776	620	3001	9733	4277	1897	1336	165
MAX	162	219	321	488	1840	1780	4360	14100	11000	2110	2190	205
MIN	94	117	122	95	240	186	995	5190	665	1100	174	134
AC-FT	7400	9480	10960	16980	44650	38120	178600	598400	254500	116700	82150	9790

CAL YR 1979 TOTAL 167267 MEAN 458 MAX 5970 MIN 93 AC-FT 331800
WTR YR 1980 TOTAL 689550 MEAN 1884 MAX 14100 MIN 94 AC-FT 1368000

06766500 PLATTE RIVER NEAR COZAD, NE

LOCATION.--North Channel gage: Lat 40°50'08", long 99°59'13" in S1/2 sec.18, T.10 N., R.23 W., Dawson County, Hydrologic Unit 10200101, on left bank 30 ft (9 m) upstream from highway bridge, 1.5 mi (2.4 km) south of Cozad. South Channel gage: Lat 40°49'47", long 99°59'18" in S1/2 sec.18, T.10 N., R.23 W., Dawson County, on right bank on upstream side (revised) of highway bridge, 1.5 mi (2.4 km) south of Cozad.

DRAINAGE AREA.--56,500 mi² (146,300 km²), approximately, of which about 51,700 mi² (133,900 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--July to September 1932, May 1937 to current year (prior to April 1939, irrigation seasons only). Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Two water-stage recorders. Datum of gage on south channel is 2,473.07 ft (753.792 m) and on north channel, 2,475.72 ft (754.599 m) National Geodetic Vertical Datum of 1929 (Nebraska Department of Roads bench mark). See WSP 2118 for history of changes prior to May 10, 1966. North channel gage: May 10, 1966 to May 10, 1976 at datum 1.00 ft (0.305 m) higher and May 11, 1976 to June 16, 1977 at present datum, both at downstream side of highway bridge 30 ft (9 m) downstream. South channel gage: May 10, 1966 to July 17, 1980 at downstream side of higway bridge at present datum.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. River flows in two channels for which separate records are computed; figures given herein represent combined discharge.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,400 ft³/s (521 m³/s) May 29, 1973; no flow at times in 1937-40.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,300 ft³/s (377 m³/s) May 10; minimum daily, 45 ft³/s (1.27 m³/s) July 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	124	240	186	295	408	1450	904	4810	10200	93	56	122
2	118	228	217	292	418	1240	1300	5490	9970	96	56	159
3	120	219	238	274	448	1480	1690	6010	9550	106	62	144
4	140	219	248	268	478	1800	2380	5900	8880	117	52	127
5	151	218	282	277	480	1900	2860	5480	8030	117	56	103
6	159	224	280	267	472	1950	3190	5420	7230	116	90	81
7	154	230	270	216	473	1840	3460	5970	6350	117	134	70
8	154	230	264	156	476	1520	3730	6610	5850	114	100	66
9	150	237	274	186	477	1280	4030	9450	5410	118	113	64
10	148	231	274	256	611	1130	4120	13000	4990	119	240	58
11	148	230	286	306	907	936	4020	12200	4470	112	253	61
12	156	226	270	326	886	684	3570	11100	4280	99	265	62
13	158	226	267	355	862	876	3080	10100	4000	106	220	83
14	155	225	246	385	820	869	2820	9490	3560	119	249	92
15	140	225	246	406	820	811	2540	9260	3270	107	283	86
16	158	227	236	428	800	764	2310	9690	3330	89	499	84
17	162	235	226	458	820	697	2330	9020	3430	78	730	87
18	166	238	362	488	865	558	2390	8760	3470	61	549	90
19	161	232	515	507	909	405	2440	9230	3720	45	506	92
20	153	237	593	546	1100	361	2520	9710	3480	63	391	98
21	158	260	454	561	1300	338	2820	9790	2960	78	304	100
22	168	227	346	586	1620	329	3250	9790	2530	71	253	100
23	171	211	318	595	1770	322	3470	11000	1890	75	203	99
24	192	234	288	676	2000	311	3580	12100	1440	93	122	98
25	204	252	272	650	2150	345	3610	11800	1080	121	76	136
26	210	251	264	572	2220	373	3850	11300	710	127	53	167
27	210	254	260	529	2260	480	3990	10800	491	118	55	172
28	210	236	258	530	2040	659	3940	10300	392	105	53	174
29	211	178	264	528	1860	800	3840	10000	302	79	51	175
30	220	166	284	458	---	766	4040	9720	200	56	49	168
31	238	---	293	408	---	655	---	10100	---	51	69	---
TOTAL	5167	6846	9081	12785	30750	27929	92074	283400	125465	2966	6192	3218
MEAN	167	228	293	412	1060	901	3069	9142	4182	95.7	200	107
MAX	238	260	593	676	2260	1950	4120	13000	10200	127	730	175
MIN	118	166	186	156	408	311	904	4810	200	45	49	58
AC-FT	10250	13580	18010	25360	60990	55400	182600	562100	248900	5880	12280	6380

CAL YR 1979 TOTAL 142596 MEAN 391 MAX 5800 MIN 28 AC-FT 282800
WTR YR 1980 TOTAL 605873 MEAN 1655 MAX 13000 MIN 45 AC-FT 1202000

06768000 PLATTE RIVER NEAR OVERTON, NE

LOCATION.--Lat 40°40'57", long 99°32'19", in NW1/4NE1/4 sec.12, T.8 N., R.20 W., Dawson County, Hydrologic Unit 10200101, on left bank 600 ft (183 m) downstream from county highway bridge, 4 mi (6 km) south of Overton and 4 mi (6 km) downstream from Plum Creek.

DRAINAGE AREA.--57,700 mi² (149,400 km²), approximately, of which about 52,900 mi² (137,000 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July to September 1914 (gage heights only), October 1914 to current year. Monthly discharge only for some periods, published in WSP 1310. Published as "near Elm Creek" 1914-15.

REVISED RECORDS.--WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,298.83 ft (700.683 m) National Geodetic Vertical Datum of 1929. July 1914 to October 1917 nonrecording gages at site 8 mi (13 km) downstream at different datum. June 1918 to Sept. 12, 1928, nonrecording gage at site 600 ft (180 m) upstream (south channel only) at datum 3.0 ft (0.91 m) higher. Sept. 13, 1928, to Sept. 30, 1930, nonrecording gage and Oct. 1, 1930, to Sept. 30, 1968, water-stage recorder, at site 600 ft (180 m) upstream (south channel only) at datum 1.0 ft (0.30 m) higher. Oct. 1, 1968 to Feb. 3, 1976 water-stage recorder on south channel at site 600 ft (180 m) upstream at datum 1.0 ft (0.30 m) higher, and Feb. 4 to June 2, 1976 (south channel gage discontinued) at present datum. Oct. 1, 1968, to July 10, 1974, north channel gage at site 600 ft (180 m) upstream at datum 1.0 ft (0.30 m) higher and July 11, 1974 to June 1, 1976 at same datum.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,600 ft³/s (1,060 m³/s) June 5, 1935, gage height, 6.25 ft (1.905 m) south channel; maximum gage height, 6.43 ft (1.960 m) May 15, 1973, north channel, datum then in use; no flow at times in 1919, 1922, 1925, 1927-28, 1930-41.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 14,600 ft³/s (413 m³/s) May 25, gage height, 5.53 ft (1.686 m); minimum daily discharge, 130 ft³/s (3.68 m³/s) Aug. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	641	729	830	2270	1750	3520	2860	5300	9880	457	151	304
2	618	672	816	2270	1750	3170	3220	5680	10200	450	142	407
3	602	657	955	2270	2000	3060	3710	6520	9930	368	142	635
4	604	651	1030	2240	2350	3350	4280	7510	9450	356	130	619
5	604	649	1050	2180	2450	3760	4900	7340	9080	356	134	531
6	604	632	1160	2190	2480	3850	5230	6900	8450	316	134	512
7	604	644	1770	1550	2480	3820	5330	6520	7880	288	134	374
8	604	657	2110	1450	2420	3680	5370	6710	7260	277	151	375
9	604	691	2220	1200	2130	3460	5500	7180	6980	282	155	594
10	604	704	2280	1400	2350	3250	5570	9220	6710	293	191	605
11	604	706	2280	1600	2460	3120	5050	12300	6250	304	230	594
12	604	699	2380	1800	2480	2910	5750	12300	5930	288	256	635
13	617	699	2340	2100	2600	2810	5470	11400	5640	251	261	618
14	630	697	2280	2500	2550	2960	5170	10400	5200	206	266	699
15	620	714	2420	2750	2500	2840	5100	9980	4810	178	304	716
16	617	778	2120	3000	2400	2810	5000	10300	4560	206	752	809
17	617	794	2730	3140	2460	2890	4970	10700	4620	206	1090	1110
18	610	794	2060	3090	2370	2890	4970	10000	4870	196	1250	1330
19	604	789	1920	3040	2420	2810	4500	9410	5200	187	1090	1460
20	591	799	2550	2960	2600	2690	4370	10100	5780	178	912	1460
21	600	842	2520	2760	3060	2670	4460	10900	5030	173	716	1470
22	600	831	2270	2600	3460	2620	4650	10800	4680	182	559	1410
23	600	825	2110	2510	3820	2580	5000	10900	3960	173	414	1340
24	600	810	2000	2510	3820	2480	5100	12300	2960	168	344	1340
25	610	828	2140	2650	3710	2460	5170	14000	2020	178	277	1210
26	610	873	2250	2670	3650	2620	5200	13600	1260	196	240	1060
27	620	820	2270	2350	3740	2650	5330	13000	829	210	210	1020
28	620	836	2210	2050	3680	2890	5440	12500	734	220	191	953
29	640	622	2190	2000	3680	3010	5300	10800	699	210	187	919
30	680	847	2200	2000	---	3090	5170	9600	567	191	182	886
31	714	---	2260	1950	---	3010	---	9500	---	173	246	---
TOTAL	19097	22289	61721	71050	79620	93730	147140	303670	161419	7717	11441	25995
MEAN	616	743	1991	2292	2746	3024	4905	9796	5381	249	369	867
MAX	714	873	2730	3140	3820	3850	5750	14000	10200	457	1250	1470
MIN	591	622	816	1200	1750	2460	2860	5300	567	168	130	304
AC-FT	37880	44210	122400	140900	157900	185900	291900	602300	320200	15310	22690	51560

CAL YR 1979 TOTAL 440499 MEAN 1207 MAX 7280 MIN 192 AC-FT 873700
WTR YR 1980 TOTAL 1004889 MEAN 2746 MAX 14000 MIN 130 AC-FT 1993000

06768000 PLATTE RIVER NEAR OVERTON, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1952, 1958 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1958 to current year.
WATER TEMPERATURES: January 1958 to current year.

INSTRUMENTATION.--Temperature recorder from Apr. 5, 1967 to Aug. 2, 1976; Mar. 21, 1978 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,480 micromhos May 15, 1966 (south chan.); minimum daily, 214 micromhos July 23, 1968 (south chan.).
WATER TEMPERATURES: Maximum, 37.0°C June 13, 1959 (south chan.), July 9, 1960 (north chan.); minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,310 micromhos Feb. 5, 6, 7, 8 (south chan.); minimum daily, 728 micromhos Sept. 7 (south chan.).
WATER TEMPERATURES: Maximum daily, 35.0°C Aug. 1; minimum daily, 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	COLOR (PLAT-INUM COBALT UNITS) (00080)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)
OCT 24...	0930	550	845	8.2	8.0	5	8	11.2	2.0	3000
NOV 20...	0945	660	790	8.1	5.5	5	7	11.6	1.7	500
DEC 18...	0945	1000	880	8.1	.5	0	8	12.7	3.8	K2000
JAN 16...	1015	560	830	7.8	1.0	20	30	12.3	4.8	800
FEB 26...	1030	3370	975	7.8	1.0	25	50	12.7	3.5	500
MAR 25...	0945	1040	1040	8.0	5.0	10	7	12.1	7.6	K62
APR 22...	0930	3210	1060	8.2	17.0	10	20	10.0	3.1	350
MAY 21...	1030	11400	920	7.6	17.0	30	65	7.8	6.4	180
JUN 20...	1035	3400	848	7.3	19.0	35	80	4.8	--	1400
JUL 16...	0930	90	910	8.0	24.0	15	15	8.4	4.1	--
AUG 27...	0945	90	920	8.0	17.0	5	10	8.2	--	--
SEP 24...	1045	310	900	8.0	15.0	5	7	9.4	2.4	K88

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
OCT 24...	190	290	75	78	22	68	1.8	14	210	200
NOV 20...	K110	280	66	76	21	67	1.8	13	210	190
DEC 18...	1100	330	100	92	25	76	1.8	14	230	220
JAN 16...	350	280	83	77	22	72	1.9	12	200	210
FEB 26...	4400	320	140	87	26	76	1.8	11	180	290
MAR 25...	K56	370	180	97	32	96	2.2	11	190	310
APR 22...	280	350	170	88	31	98	2.3	12	180	330
MAY 21...	340	310	160	79	27	77	1.9	8.9	150	260
JUN 20...	3000	270	100	71	23	69	1.8	9.4	170	210
JUL 16...	600	290	86	75	24	81	2.1	15	200	230
AUG 27...	150	290	84	78	24	85	2.2	13	210	220
SEP 24...	K110	280	86	71	24	83	2.2	14	190	220

K Results based on colony count outside the acceptable range (non-ideal colony count).

06768000 PLATTE RIVER NEAR OVERTON, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)
OCT 24...	28	.5	36	588	577	.80	873	1.2	1.0
NOV 20...	23	.5	37	558	561	.76	994	1.5	1.5
DEC 18...	26	.5	43	650	643	.88	1760	1.8	1.8
JAN 16...	25	.5	35	589	580	.80	891	1.4	1.4
FEB 26...	36	.6	28	704	671	.96	6410	1.9	1.9
MAR 25...	33	.6	28	751	731	1.02	2110	2.0	2.0
APR 22...	39	.8	--	771	--	1.05	6680	.02	.02
MAY 21...	30	.7	19	622	595	.85	19100	.64	.64
JUN 20...	31	.7	22	560	582	.76	5140	.96	.80
JUL 16...	29	.8	30	638	606	.87	155	.23	.23
AUG 27...	31	.6	33	647	615	.88	157	1.0	.98
SEP 24...	32	.6	30	659	591	.90	552	.60	.56

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
OCT 24...	.000	.79	.79	2.0	.130	.090	130	10	10
NOV 20...	.130	.47	.60	2.1	.120	.090	110	30	10
DEC 18...	.160	.53	.69	2.5	.120	.120	110	10	10
JAN 16...	.130	.82	.95	2.4	.200	.130	110	30	7
FEB 26...	.200	1.0	1.2	3.1	.360	.220	150	20	7
MAR 25...	.120	.86	.98	3.0	.200	.150	250	<10	10
APR 22...	.000	.91	.91	.93	.180	.050	180	120	20
MAY 21...	.070	.93	1.0	1.6	.250	.120	100	20	20
JUN 20...	.070	.93	1.0	2.0	.260	.130	110	20	7
JUL 16...	.000	1.2	1.2	1.4	.140	.030	150	20	20
AUG 27...	.040	.83	.87	1.9	.180	.120	150	<10	20
SEP 24...	.070	.56	.63	1.2	.140	.060	150	<10	20

06768000 PLATTE RIVER NEAR OVERTON, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)
OCT							
24...	0930	5	80	<1	0	11	4
APR							
22...	0930	4	90	<1	0	3	5
JUL							
16...	0930	6	80	1	10	5	0

DATE	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDED RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
OCT						
24...	.1	.1	.0	2	0	7
APR						
22...	.7	.0	.7	3	0	930
JUL						
16...	.1	.1	.0	2	0	8

06768000 PLATTE RIVER NEAR OVERTON, NE--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	21.5	15.0	6.5	3.5	1.0	.0	3.0	.5	.5	.0	1.5	.0
2	22.0	16.5	9.0	5.0	1.0	.0	3.0	1.0	.5	.0	3.0	.5
3	19.0	13.5	9.5	4.5	1.5	.0	3.0	.5	.5	.5	3.0	1.0
4	19.0	10.5	9.0	5.5	2.0	.5	2.0	1.0	.5	.0	1.5	.5
5	18.5	11.5	8.5	4.5	4.5	1.0	3.0	.0	1.0	.5	2.0	.5
6	19.5	11.5	7.0	4.5	4.5	4.0	1.5	.0	1.0	.5	2.0	1.5
7	19.5	13.0	8.0	3.5	4.5	3.0	1.0	.0	1.0	.5	2.0	1.0
8	20.0	13.5	5.5	3.0	4.5	3.0	.5	.0	.5	.0	6.0	.0
9	16.0	10.5	5.5	1.5	5.5	1.5	.5	.0	.5	.0	8.0	3.0
10	15.5	10.0	5.0	.5	6.5	3.5	1.0	.5	1.0	.0	7.0	4.5
11	19.0	13.0	5.5	2.0	2.0	.0	1.0	.5	2.0	.0	5.5	3.5
12	18.0	13.5	6.0	3.0	.5	.0	.5	.5	1.5	.0	5.0	4.0
13	14.5	11.0	7.0	2.0	.5	.0	.5	.5	2.0	.0	4.5	3.5
14	14.5	10.5	7.0	3.0	.5	.0	.5	.5	.5	.0	5.5	3.5
15	16.5	12.5	8.5	3.5	1.5	.0	1.0	.5	.5	.0	6.0	4.0
16	18.5	14.5	9.0	4.5	.0	.0	3.5	1.5	1.0	.0	5.5	4.0
17	18.0	11.5	9.0	5.0	.0	.0	3.5	.5	1.0	.0	5.0	3.0
18	16.5	14.0	9.0	5.5	1.5	.5	3.0	1.5	3.0	1.0	5.5	3.5
19	16.5	11.0	9.0	5.5	2.0	.0	1.5	1.0	2.0	1.5	6.5	3.5
20	18.0	13.0	6.5	4.0	3.0	.0	1.5	.5	3.5	1.0	7.5	5.0
21	14.0	8.0	4.0	1.0	3.0	.5	1.5	.5	3.0	2.0	6.0	5.0
22	11.5	6.0	6.5	1.0	3.0	.5	2.5	1.0	3.0	2.0	5.5	4.0
23	13.0	13.0	3.0	1.0	4.5	2.0	3.0	1.0	3.0	1.5	5.5	4.0
24	14.0	8.0	4.5	1.0	4.0	1.5	5.0	1.5	5.0	1.0	5.0	3.5
25	15.0	9.5	5.0	3.0	4.5	2.0	2.0	.0	4.0	1.5	5.0	4.0
26	15.0	10.0	4.0	1.0	4.5	2.0	.0	.0	5.5	.5	5.0	4.0
27	15.5	11.5	2.0	.5	5.0	4.0	1.0	.0	7.0	3.0	5.0	3.5
28	14.0	9.0	1.5	.5	4.0	2.0	.5	.0	5.5	4.0	4.0	3.5
29	11.5	10.0	1.0	.0	3.5	1.5	.0	.0	4.0	.0	3.5	3.0
30	10.0	6.0	1.0	.0	4.5	3.5	.5	.0	---	---	4.0	3.0
31	6.0	4.5	---	---	3.5	1.0	1.0	.0	---	---	5.0	3.5
MONTH	22.0	4.5	9.5	.0	6.5	.0	5.0	.0	7.0	.0	8.0	.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	4.5	4.0	14.5	13.5	22.0	18.0	29.5	23.0	35.0	21.5	28.5	19.5
2	4.0	3.0	14.0	11.5	23.5	19.0	23.0	20.0	34.5	22.0	28.0	18.5
3	4.5	3.5	15.5	12.0	24.0	20.0	31.0	20.0	32.0	20.5	29.5	20.5
4	6.5	3.5	19.0	14.0	27.0	23.5	33.0	21.5	32.0	18.5	25.5	21.0
5	7.5	4.5	20.5	15.5	28.0	24.0	32.0	24.0	33.0	23.5	28.5	18.0
6	8.5	6.5	21.5	16.0	27.0	24.5	33.0	22.0	32.0	21.0	29.5	21.0
7	9.5	8.0	19.5	15.5	26.0	23.5	32.0	22.5	31.5	22.0	28.0	21.5
8	10.0	6.5	19.5	16.0	23.0	20.0	31.0	23.0	32.0	23.0	30.5	20.5
9	12.0	6.0	15.5	14.0	24.0	19.5	30.5	24.0	33.0	22.0	20.0	18.0
10	13.0	8.5	20.5	15.0	24.5	20.5	29.5	24.5	33.5	21.5	23.5	16.0
11	11.0	8.0	17.0	14.0	25.5	23.0	34.5	22.0	31.0	21.5	28.0	19.5
12	11.0	5.5	14.5	13.5	26.0	21.5	31.0	22.0	30.0	22.0	28.0	14.5
13	11.0	6.0	16.5	11.5	29.0	23.5	33.5	20.5	32.0	24.0	24.0	10.0
14	9.0	6.5	16.0	13.0	30.0	25.0	34.5	23.0	28.5	22.0	17.0	10.0
15	6.5	6.0	16.5	13.5	28.0	18.5	33.5	23.0	22.0	20.5	11.0	11.0
16	6.0	6.0	14.5	12.0	25.0	22.0	33.0	23.5	29.5	21.0	13.5	4.5
17	6.0	5.5	12.0	11.5	22.0	17.0	33.0	22.0	28.5	21.5	4.5	4.5
18	10.5	6.0	14.5	11.5	23.5	19.0	33.0	21.5	23.0	29.0	24.0	21.0
19	9.0	6.5	16.0	12.0	21.5	20.5	31.0	22.0	30.0	24.0	24.5	20.0
20	7.0	6.5	17.0	14.5	22.0	19.5	33.5	22.0	28.0	24.0	23.0	15.5
21	10.5	7.0	18.5	16.0	23.5	20.0	32.0	22.0	28.0	20.5	25.5	16.0
22	9.0	6.5	20.0	17.5	26.5	21.0	33.0	21.0	26.0	22.0	22.0	15.0
23	10.5	7.0	22.0	18.0	28.5	23.0	33.5	20.0	29.0	20.0	20.5	13.5
24	8.0	8.0	23.5	19.5	28.0	23.5	31.5	24.5	31.0	21.0	23.0	14.5
25	8.5	8.0	24.5	20.0	30.0	24.5	30.5	22.0	31.0	21.5	21.0	14.5
26	9.0	8.5	24.5	20.0	30.5	25.0	30.5	21.5	24.0	19.0	19.0	12.0
27	9.5	8.5	23.5	20.5	30.0	24.0	31.5	21.0	23.5	18.0	21.5	13.5
28	11.5	9.0	23.5	19.0	31.0	20.0	34.5	23.0	29.5	24.5	20.0	16.0
29	13.0	10.0	23.5	20.5	29.0	20.0	34.0	21.5	29.0	19.5	23.0	15.5
30	14.0	11.5	22.0	18.5	31.5	20.0	29.5	22.0	27.0	20.0	19.0	14.5
31	---	---	21.0	18.5	---	---	33.5	25.0	30.0	19.5	---	---
MONTH	14.0	3.0	24.5	11.5	31.5	17.0	34.5	20.0	35.0	18.0	30.5	4.5

PLATTE RIVER BASIN

06767998 PLATTE RIVER NEAR OVERTON, NE (NORTH CHANNEL)

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	868	808	927	829	1080	1050	915	895	810	925	965	887
2	885	808	862	838	1040	1050	914	900	815	900	947	882
3	876	811	804	822	992	1070	915	910	830	919	955	867
4	887	824	751	830	978	1130	877	925	832	898	938	867
5	867	806	758	850	905	1160	973	920	851	895	909	869
6	869	815	765	845	905	1100	995	930	860	914	889	877
7	862	801	780	1140	997	1110	1030	935	875	928	917	842
8	850	798	779	999	999	1000	1080	940	880	888	888	879
9	855	800	775	1020	1040	1000	1120	915	880	896	906	859
10	857	798	766	960	1030	965	1160	875	890	918	862	868
11	857	799	779	1040	987	977	1180	880	910	916	848	863
12	855	799	772	1080	960	977	1220	890	900	905	868	888
13	840	800	805	1040	968	999	1210	900	910	898	870	878
14	846	794	828	982	1000	988	1200	900	900	897	807	859
15	847	800	818	887	1020	997	1190	890	905	911	807	869
16	857	801	851	828	1010	980	1160	850	892	888	848	867
17	845	804	908	805	1020	988	1160	890	875	886	826	837
18	848	803	880	800	985	1020	1170	885	850	888	848	888
19	849	799	904	893	985	1020	1120	885	850	916	845	878
20	845	781	851	890	920	1030	1120	885	823	945	867	830
21	850	780	789	933	784	1030	1100	890	837	944	875	877
22	837	800	779	900	782	1030	1090	910	840	946	885	857
23	845	782	791	915	749	1070	1060	915	880	927	897	871
24	837	813	972	878	847	1070	995	900	880	873	906	827
25	835	808	829	878	915	1070	997	885	885	871	935	826
26	827	799	831	1010	960	1040	975	890	890	893	934	838
27	835	809	846	1120	979	1050	975	890	860	885	926	843
28	832	818	831	985	990	927	938	860	860	895	944	858
29	825	855	827	1140	987	955	908	860	855	909	950	844
30	797	911	809	1100	---	957	890	870	860	931	953	855
31	788	---	818	1110	---	990	---	860	---	936	918	---

06767999 PLATTE RIVER NEAR OVERTON, NE (SOUTH CHANNEL)

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	879	909	882	1110	1240	1190	1110	980	812	882	830	762
2	869	910	863	1110	1190	1150	1110	1050	830	848	838	808
3	870	908	860	1120	1290	1270	1110	1040	900	865	853	794
4	871	910	854	1140	1290	1280	1130	990	900	861	855	788
5	889	906	854	1140	1310	1280	1130	1020	905	875	849	795
6	874	907	859	1140	1310	1280	1140	1020	907	905	853	767
7	884	918	849	1150	1310	1280	1140	1010	888	905	847	728
8	873	911	841	1160	1310	1280	1170	1020	885	869	846	786
9	880	909	842	1160	1280	1270	1200	1010	890	875	848	757
10	875	909	852	1140	1290	1280	1180	980	910	919	837	778
11	882	910	850	1140	1240	1280	1200	980	920	921	837	765
12	889	899	859	1150	1220	1280	1220	960	920	929	837	777
13	880	914	862	1160	1260	1270	1220	985	920	911	836	786
14	890	904	860	1160	1230	1260	1220	970	918	910	827	760
15	883	898	870	1190	1180	1290	1200	915	910	942	826	787
16	889	900	902	1180	1270	1280	1180	940	909	892	845	762
17	880	900	900	1200	1220	1290	1170	960	904	875	820	773
18	886	889	915	1220	1220	1270	1170	950	900	865	825	777
19	889	885	920	1220	1250	1270	1160	960	860	882	825	757
20	899	882	919	1220	1270	1260	1160	945	900	889	867	756
21	899	881	921	1220	1220	1250	1120	945	900	906	867	755
22	895	881	947	1220	1230	1240	1120	920	898	902	868	775
23	895	880	984	1240	1200	1240	1090	930	905	879	860	765
24	889	880	1010	1260	1220	1240	1140	920	892	858	865	787
25	897	879	1060	1260	1240	1220	1060	940	905	842	870	753
26	888	900	1060	1230	1250	1220	1060	930	915	852	865	779
27	895	885	1020	1280	1260	1210	1060	920	860	855	846	773
28	890	875	1060	1230	1260	1180	1080	915	868	858	866	768
29	890	870	1070	1280	1260	1190	1020	860	873	882	859	767
30	861	889	1070	1260	---	1200	1080	910	862	865	860	769
31	870	---	1080	1270	---	1210	---	860	---	895	767	---

06770000 PLATTE RIVER NEAR ODESSA, NE

LOCATION.--Lat 40°39'55", long 99°15'20", in E1/2 sec.16, T.8 N., R.17 W., Buffalo-Phelps County line, Hydrologic Unit 10200101, near right bank on downstream side of pier of highway bridge, 2.5 mi (4.0 km) south of Odessa and 5 mi (8 km) downstream from Elm Creek.

DRAINAGE AREA.--58,100 mi² (150,500 km²), approximately, of which about 53,300 mi² (138,000 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--March 1937 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,197.07 ft (669.667 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 7, 1938, nonrecording gage and Oct. 7, 1938, to Sept. 30, 1942, water-stage recorder, at present site at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,700 ft³/s (643 m³/s) June 24, 1947, gage height, 5.52 ft (1.682 m); maximum gage height, 5.89 ft (1.795 m) Mar. 5, 1952, backwater from ice; no flow for periods in each year prior to 1947 and in 1953-57, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 14,400 ft³/s (408 m³/s) May 26, gage height, 5.01 ft (1.527 m); minimum daily discharge, 37 ft³/s (1.05 m³/s) Aug. 8-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	230	566	950	2500	1600	3960	3310	5150	10900	325	49	56
2	210	580	886	2560	1700	3720	3560	5720	11300	310	46	104
3	210	580	950	2420	2300	3370	4030	6120	11300	280	44	248
4	210	594	1030	2260	2700	3530	4360	6720	10500	260	43	352
5	220	580	1080	2180	3200	3810	4640	6870	9850	230	39	285
6	220	390	982	2180	3350	4060	5010	6370	9010	200	38	265
7	220	414	1320	1400	3300	3840	5250	6030	8330	158	38	265
8	220	664	2060	1300	2700	3720	5430	6170	7560	133	37	230
9	230	692	2210	1400	2000	3560	5610	6870	7120	110	37	315
10	230	678	2180	1470	2000	3370	5900	7840	6770	99	37	330
11	230	692	2090	1560	2100	3180	6050	11000	6220	93	44	320
12	240	664	1950	1600	2200	3070	5610	13000	5670	93	49	300
13	240	650	2000	1630	2300	2960	6050	12100	5380	93	49	300
14	240	664	2020	1970	2300	2990	5660	11100	4700	82	99	330
15	240	678	2180	2420	2300	3070	5480	10200	4310	64	154	370
16	240	822	1700	2610	2300	3020	5150	10500	3910	54	280	358
17	230	870	2340	2450	2300	2880	5030	11100	3940	51	785	511
18	230	950	2340	2480	2500	2750	4700	11000	4120	52	1170	643
19	250	1010	1880	2750	2800	2610	4370	10000	4240	51	1200	832
20	260	1110	2320	2830	3100	2500	4180	9790	4640	54	1070	838
21	250	1200	2560	2670	3500	2480	4210	10600	4400	70	748	889
22	260	1170	2500	2610	4000	2560	4240	10800	4310	60	463	896
23	260	1060	2580	2560	4500	2580	4340	10600	3470	58	285	854
24	260	1090	2400	2480	4710	2640	4640	10900	2820	54	140	838
25	270	1200	2450	2670	4500	2610	4740	13000	2150	53	96	840
26	294	1220	2450	2500	4290	2610	4670	13800	1390	53	60	653
27	306	1260	2420	2480	4400	2690	4840	13300	862	53	50	666
28	306	1110	2400	2020	4400	3400	5150	12500	622	52	64	626
29	354	790	2370	1900	4220	3720	5220	11800	550	50	51	609
30	450	776	2340	1700	---	3500	5150	11200	428	49	49	576
31	552	---	2450	1500	---	3340	---	10900	---	49	46	---
TOTAL	8162	24724	61388	67060	87570	98100	146580	303050	160772	3393	7360	14699
MEAN	263	824	1980	2163	3020	3165	4886	9776	5359	109	237	490
MAX	552	1260	2580	2830	4710	4060	6050	13800	11300	325	1200	896
MIN	210	390	886	1300	1600	2480	3310	5150	428	49	37	56
AC-FT	16190	49040	121800	133000	173700	194600	290700	601100	318900	6730	14600	29160

CAL YR 1979 TOTAL 407476 MEAN 1116 MAX 6880 MIN 30 AC-FT 808200
WTR YR 1980 TOTAL 982858 MEAN 2685 MAX 13800 MIN 37 AC-FT 1949000

06770500 PLATTE RIVER NEAR GRAND ISLAND, NE

LOCATION.--Lat 40°52'28", long 98°16'54", in SW1/4SW1/4 sec.31, T.11 N., R.8 W., Merrick County, Hydrologic Unit 10200101, on left bank 20 ft (6 m) (revised) downstream from bridge on U.S. Highway 34, 2 mi (3 km) upstream from Burlington Northern Inc. bridge, and 5 mi (8 km) southeast of Grand Island.

DRAINAGE AREA.--58,800 mi² (152,300 km²), approximately, of which about 54,000 mi² (139,900 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1933 to current year.

REVISED RECORDS.--WSP 956: 1935. WSP 1390: 1942. WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,831.89 ft (558.360 m) National Geodetic Vertical Datum of 1929 (Nebraska Department of Highways bench mark). Prior to Oct. 23, 1933, nonrecording gage at bridge 68 ft (20.7 m) downstream and Oct. 23, 1933 to Aug. 19, 1980, water-stage recorder at site 98 ft (29.9 m) downstream, all at same datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,000 ft³/s (850 m³/s) June 6, 1935, gage height, 5.99 ft (1.826 m), from rating curve extended above 18,000 ft³/s (510 m³/s); maximum gage height, 6.16 ft (1.878 m) Mar. 27, 1960, backwater from ice; no flow at times in many years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,400 ft³/s (379 m³/s) June 4, gage height, 4.82 ft (1.469 m); minimum daily, 28 ft³/s (0.79 m³/s) Aug. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	430	700	780	2000	1350	3600	4140	4800	11500	1200	52	132
2	442	668	900	1900	1450	3400	4340	4800	10900	1090	47	135
3	405	636	1080	1850	1500	3700	4860	4990	10900	1050	41	162
4	368	606	1120	1800	2300	4700	4910	5320	11600	996	38	193
5	356	592	1120	1700	2500	4600	5000	5730	10600	914	33	228
6	346	606	1140	1550	2600	4500	4990	6090	9910	780	30	245
7	335	606	1160	1200	2600	4700	5120	5920	9110	678	28	260
8	356	588	1340	920	2500	5000	5160	5590	8130	565	30	294
9	346	585	1830	820	2300	5600	5190	5630	7350	467	42	353
10	356	599	2150	880	1900	6260	5260	6010	6640	388	135	365
11	368	606	2220	1000	2000	5120	5580	6370	6140	348	235	378
12	368	619	1850	1160	2150	4120	5530	7230	5700	319	165	393
13	390	621	1800	1400	2300	3840	5030	9480	5280	314	250	404
14	396	622	1950	1600	2500	3650	5490	10300	4950	305	620	411
15	407	654	2200	1800	2700	3150	5210	9770	4670	281	700	436
16	418	684	1600	1900	2900	3220	5160	9780	4310	258	780	427
17	430	680	1950	2100	2600	2990	5190	10400	4070	235	550	444
18	418	684	2350	2200	2450	2830	4890	10400	3920	210	480	462
19	418	716	2700	2300	2600	2710	4670	10500	3920	185	592	507
20	420	834	2900	2350	2800	2620	4510	9920	4070	163	700	555
21	405	978	2800	2400	3000	2540	4290	9350	4170	148	732	768
22	405	1020	2800	2450	3400	2420	4370	9390	4730	134	748	819
23	430	971	2900	2600	3900	2370	4380	9880	4740	115	684	854
24	442	924	2800	2700	4400	2340	4530	9980	4000	105	550	836
25	405	934	2700	2400	5000	2320	4640	10100	3500	96	461	777
26	406	938	2600	1600	4500	2470	4600	11100	2990	88	356	779
27	396	918	2500	1060	4400	2540	4520	12500	2560	80	314	754
28	392	640	2400	1120	4200	3080	4520	12600	2200	74	253	711
29	402	560	2300	1160	4000	4560	4840	12100	1850	70	170	713
30	578	800	2200	1220	---	4640	4880	11300	1520	65	133	661
31	748	---	2100	1300	---	4170	---	10900	---	58	128	---
TOTAL	12782	21589	62240	52440	82800	113760	145800	268230	175930	11779	10077	14456
MEAN	412	720	2008	1692	2855	3670	4860	8653	5864	380	325	482
MAX	748	1020	2900	2700	5000	6260	5580	12600	11600	1200	780	854
MIN	335	560	780	820	1350	2320	4140	4800	1520	58	28	132
AC-FT	25350	42820	123500	104000	164200	225600	289200	532000	349000	23360	19990	28670

CAL YR 1979 TOTAL 455400 MEAN 1248 MAX 5950 MIN 90 AC-FT 903300
WTR YR 1980 TOTAL 971883 MEAN 2655 MAX 12600 MIN 28 AC-FT 1928000

06770500 PLATTE RIVER NEAR GRAND ISLAND, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1972 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1972 to current year.
WATER TEMPERATURES: July 1972 to current year.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,250 micromhos Feb. 3, 1980; minimum daily, 575 micromhos May 24, 1977.
WATER TEMPERATURES: Maximum, 34.5°C July 23, 1972; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,250 micromhos Feb. 3; minimum daily, 748 micromhos Oct. 31.
WATER TEMPERATURES: Maximum, 26.0°C June 27; minimum, 1.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	COLOR (PLAT-INUM COBALT UNITS) (00080)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
OCT 16...	0920	412	882	8.2	14.0	5	15	11.0	9.5	430
NOV 08...	0955	596	881	8.1	4.0	30	15	13.2	4.8	K150
DEC 31...	1240	2050	989	8.1	1.5	5	20	13.8	4.8	K32
JAN 30...	1050	1230	1160	7.8	.5	5	5	13.5	2.6	120
MAR 12...	1055	4040	1070	8.2	2.5	10	25	12.6	3.0	140
APR 24...	1040	4690	1020	8.8	11.0	5	30	12.8	7.2	68
MAY 14...	1130	10200	900	8.0	13.5	20	25	8.8	4.4	290
JUN 04...	1220	11100	847	7.8	24.0	40	30	6.6	4.2	88
JUL 10...	1110	388	919	8.2	30.0	15	25	7.9	5.4	310
AUG 28...	0840	247	909	8.4	19.5	5	20	8.6	10	1300
SEP 17...	1150	414	821	8.3	17.0	18	35	9.7	5.5	730

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
OCT 16...	510	280	100	73	24	85	2.2	13	180	260
NOV 08...	380	290	90	78	23	82	2.1	12	200	230
DEC 31...	K35	320	120	87	26	89	2.2	13	200	290
JAN 30...	52	380	150	100	31	100	2.2	12	230	360
MAR 12...	1000	370	160	98	31	97	2.2	12	210	320
APR 24...	K30	330	190	77	34	110	2.6	11	140	370
MAY 14...	670	300	110	82	24	73	1.8	12	190	260
JUN 04...	430	300	130	78	25	73	1.8	9.3	170	240
JUL 10...	76	280	110	72	25	81	2.1	14	170	260
AUG 28...	360	280	84	74	24	89	2.3	11	200	230
SEP 17...	120	260	67	65	23	87	2.4	11	190	230

K Results based on colony count outside the acceptable range (non-ideal colony count).

06770500 PLATTE RIVER NEAR GRAND ISLAND, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)
OCT 16...	37	.6	23	628	626	.85	699	.50	.50
NOV 08...	29	.5	26	610	605	.83	982	1.2	.83
DEC 31...	35	.6	30	725	696	.99	4010	1.2	1.2
JAN 30...	40	.7	29	834	817	1.13	2770	1.5	1.3
MAR 12...	40	.6	26	804	759	1.09	8770	1.9	1.9
APR 24...	42	.6	--	748	--	1.02	9470	.03	.03
MAY 14...	32	.6	22	669	622	.91	18400	.65	.39
JUN 04...	28	.7	22	592	580	.81	17700	.46	.40
JUL 10...	34	.9	24	649	613	.88	680	.01	.01
AUG 28...	31	.6	27	698	608	.95	466	.26	.19
SEP 17...	30	.6	25	774	588	1.05	865	.47	.35

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
OCT 16...	.01	.94	.95	1.5	.100	.050	150	<10	2
NOV 08...	.03	.49	.52	1.7	.120	.080	140	10	8
DEC 31...	.05	1.1	1.1	2.3	.110	.050	140	<10	2
JAN 30...	.04	.53	.57	2.1	.130	.100	180	<10	5
MAR 12...	.06	3.1	3.2	5.1	.240	.220	170	<10	2
APR 24...	.02	1.8	1.8	1.8	.210	.010	180	<10	<3
MAY 14...	.18	.49	.67	1.3	.170	.070	160	20	1
JUN 04...	.07	.92	.99	1.5	.220	.020	--	10	<3
JUL 10...	.00	1.3	1.3	1.3	.070	.030	180	<10	<3
AUG 28...	.12	.88	1.0	1.3	.170	.090	170	<10	<1
SEP 17...	.00	1.2	1.2	1.7	.190	.080	160	<10	<1

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, DISSOLVED (UG/L AS CU) (01040)
NOV 08...	0955	0	4	90	<1	0	0
MAY 14...	1130	30	3	100	3	<10	5

DATE	LEAD, DISSOLVED (UG/L AS PB) (01049)	MERCURY DISSOLVED (UG/L AS HG) (71890)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
NOV 08...	0	.0	<10	2	0	8
MAY 14...	0	<.1	5	0	0	4

06770500 PLATTE RIVER NEAR GRAND ISLAND, NE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	895	850	833	1100	1150	980	1050	980	870	894	1010	958
2	910	839	832	1110	1160	1060	1060	980	875	911	962	947
3	910	885	829	1110	1250	1120	1010	980	870	899	960	958
4	920	887	828	1100	1140	1120	1010	980	859	875	977	929
5	919	873	832	1110	1160	1120	1030	970	860	899	980	935
6	919	870	880	1100	1160	1120	1020	985	870	911	980	895
7	915	871	890	1110	1160	1120	1040	990	893	939	1010	917
8	913	880	892	1100	1160	1120	1040	985	900	956	1010	907
9	909	873	893	1100	1160	1120	1060	980	910	968	858	861
10	910	870	892	1000	1150	1110	1090	980	902	928	848	865
11	900	860	890	1110	1160	1110	1120	975	890	945	850	882
12	904	860	890	1100	1150	1120	1130	940	927	947	849	895
13	900	879	895	1100	1160	1120	1160	920	932	946	847	893
14	904	876	851	940	1160	1130	1160	935	935	958	859	885
15	905	875	891	1110	1160	1130	1160	940	940	957	857	894
16	900	873	850	1090	1160	1130	1170	890	935	958	848	898
17	899	870	892	1210	1150	1140	1150	895	930	965	890	894
18	899	878	890	1210	1160	1140	1140	900	935	961	885	895
19	897	870	830	1210	1110	1140	1140	900	892	962	878	891
20	889	870	892	1210	1110	1130	1110	920	895	958	876	886
21	892	861	961	1220	1110	1130	1110	925	888	968	878	878
22	890	850	960	1220	1000	1140	1100	920	790	939	878	875
23	889	835	960	1200	1110	1140	1060	925	795	965	895	869
24	890	837	963	1200	1000	1140	1060	940	880	978	908	876
25	895	870	963	1210	1120	1140	1050	940	897	976	910	865
26	879	871	962	1210	1000	1000	1000	925	900	991	939	865
27	886	872	962	1200	1110	1000	1020	925	870	987	945	869
28	886	902	961	1210	1110	1070	1020	920	860	993	945	867
29	870	901	897	1200	1000	990	1010	920	880	988	1010	867
30	750	901	965	1200	---	1000	985	920	879	983	1010	862
31	760	---	1020	1210	---	1010	---	920	---	981	980	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.0	6.5	4.0	2.5	1.0	1.0	6.5	16.0	18.0	25.0	20.0	19.5
2	12.0	5.0	4.0	2.5	1.0	1.0	6.0	15.5	19.0	24.0	22.0	17.0
3	10.5	6.5	3.5	2.0	1.0	1.0	5.5	16.0	20.5	22.5	21.5	20.0
4	12.0	5.5	3.5	2.0	1.0	1.0	6.5	16.0	21.0	24.0	19.0	19.0
5	10.0	6.0	3.5	2.0	1.0	1.0	7.0	16.0	22.5	25.0	19.0	19.0
6	10.0	5.5	3.0	2.0	1.0	1.0	9.5	16.5	23.5	24.0	20.0	20.5
7	10.0	5.5	3.0	2.0	1.0	1.0	10.0	16.0	24.0	23.0	20.0	20.5
8	12.0	5.0	3.0	2.0	1.0	1.0	9.5	13.5	20.5	24.0	21.0	21.0
9	12.5	6.0	3.0	2.0	1.0	1.0	9.0	14.0	20.0	25.0	21.5	17.0
10	11.5	6.5	3.0	2.0	1.0	1.0	10.0	14.0	20.0	25.0	21.5	15.5
11	9.5	6.5	3.0	2.5	1.0	2.5	10.0	13.5	21.0	24.5	21.0	16.0
12	12.5	6.5	3.0	2.5	1.0	3.5	8.0	13.5	21.5	24.0	21.0	19.0
13	14.0	6.5	3.0	2.5	1.0	4.0	9.0	13.0	22.0	24.5	21.0	18.0
14	8.5	6.5	3.0	2.5	1.0	5.0	8.0	13.0	22.5	24.0	21.0	18.0
15	9.0	5.5	3.5	2.5	1.0	6.0	9.0	13.0	23.0	24.5	21.0	16.0
16	11.0	5.5	3.0	2.5	1.0	6.0	10.0	13.5	22.0	23.0	21.0	16.0
17	13.5	6.0	3.0	2.0	1.0	5.0	10.5	12.5	22.0	23.0	21.0	15.0
18	12.5	7.5	3.0	2.0	1.0	6.0	11.0	12.0	21.5	23.5	21.0	15.0
19	13.0	6.0	3.5	2.0	1.0	6.5	12.5	13.0	21.5	23.0	20.5	17.0
20	10.5	7.5	3.5	2.0	1.0	6.5	14.5	14.5	19.5	23.0	21.5	17.0
21	13.0	7.5	3.0	2.0	1.0	7.5	16.0	16.0	20.5	22.0	20.0	16.5
22	12.5	6.0	3.0	1.5	1.0	6.5	16.0	17.0	21.0	22.0	20.5	16.0
23	9.5	6.0	3.0	1.5	1.0	6.0	15.5	18.0	21.5	21.5	21.5	13.0
24	7.5	6.0	3.0	1.5	1.0	6.0	13.0	18.0	22.5	21.5	22.0	13.0
25	7.5	5.5	3.0	1.5	1.0	5.0	12.0	19.0	23.5	22.0	22.0	12.5
26	8.0	3.5	3.0	1.5	1.0	5.5	13.0	21.0	25.0	21.0	21.5	12.5
27	9.5	3.0	3.0	1.0	1.5	6.5	12.0	21.0	26.0	20.5	19.0	13.0
28	9.0	3.0	2.5	1.0	1.5	5.5	12.0	20.5	24.5	20.0	19.5	15.0
29	9.5	2.5	2.5	1.0	1.0	5.5	13.0	20.5	24.5	20.5	19.5	16.5
30	9.5	2.5	2.5	1.0	---	5.0	14.0	19.0	22.0	20.5	19.5	15.0
31	6.5	---	2.5	1.0	---	5.0	---	19.0	---	20.0	19.5	---

06772000 WOOD RIVER NEAR ALDA, NE

LOCATION.--Lat 40°51'10", long 98°28'20", in NE1/4SE1/4 sec.7, T.10 N., R.10 W., Hall County, Hydrologic Unit 10200102, on right bank 1.2 mi (1.9 km) south of Alda, 2.2 mi (3.5 km) upstream from old north channel of the Platte River, and 19 mi (31 km) upstream from present mouth.

DRAINAGE AREA.--628 mi² (1,627 km²).

PERIOD OF RECORD.--October 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,897.66 ft (578.407 m) National Geodetic Vertical Datum of 1929 (Water and Power Resources Service, formerly Bureau of Reclamation, bench mark).

REMARKS.--Records poor. Numerous small pump diversions for irrigation above station.

AVERAGE DISCHARGE.--27 years, 10.6 ft³/s (0.300 m³/s), 7,680 acre-ft/yr (9.47 hm³/yr); median of yearly mean discharges, 7.9 ft³/s (0.224 m³/s), 5,700 acre-ft/yr (7.03 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,630 ft³/s (46.2 m³/s) June 16, 1967, gage height, 12.22 ft (3.725 m); no flow for most of each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 214 ft³/s (6.06 m³/s), probably occurred Feb. 27, gage height, 7.63 ft (2.326 m), from floodmark, no peak above base of 300 ft³/s (8.50 m³/s); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.45	.00	.00	.00	8.0	8.4	.00	.00	.00	.00	.00
2	.00	6.2	.00	.00	.00	6.0	8.9	.00	.00	.00	.02	.00
3	.00	5.0	.00	.00	.00	10	12	.00	.00	.00	.10	.00
4	.00	6.0	.00	.00	.00	8.5	15	.00	.00	.00	.69	.00
5	.00	5.2	.00	.00	.00	3.0	20	.00	.00	.00	2.9	.00
6	.00	1.3	.00	.00	.00	2.0	27	.00	.00	.00	2.2	.00
7	.00	.06	.00	.00	.00	3.0	22	.00	.00	.00	.79	.00
8	.00	.00	.00	.00	.00	7.0	15	.00	.00	.00	.26	.00
9	.00	.00	.00	.00	.00	9.0	11	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	12	9.4	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	18	5.9	.00	.00	.00	.04	.00
12	.00	.00	.00	.00	.00	24	4.6	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	32	3.6	.00	.00	.00	.26	.00
14	.00	.00	.00	.00	.00	18	3.2	.00	.00	.00	.24	.00
15	.00	.00	.00	.00	.00	10	2.2	.00	.00	.00	.20	.00
16	.00	.00	.00	.00	.00	5.1	1.1	.00	.00	.01	2.0	.00
17	.00	.00	.00	.00	.00	2.5	1.0	.00	.00	1.8	2.0	.00
18	.00	.00	.00	.00	.00	2.7	1.1	.00	.00	1.5	6.7	.00
19	.00	.00	.00	.00	.00	2.3	1.1	.00	.00	.01	3.1	.00
20	.00	.00	.00	.00	.00	1.5	.90	.00	.00	.00	.32	.00
21	.00	.00	.00	.00	.00	1.7	.90	.00	.00	.04	.02	.00
22	.00	.00	.00	.00	.00	2.0	.38	.00	.00	.03	.00	.00
23	.00	.00	.00	.00	.00	2.5	.06	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	2.2	.19	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	2.0	.29	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	20	1.4	.07	.00	.00	.02	.00	.00
27	.00	.00	.00	.00	150	1.2	.00	.00	.00	.07	.00	.00
28	.00	.00	.00	.00	109	2.3	.00	.00	.00	.79	.00	.00
29	.00	.00	.00	.00	35	4.9	.00	.00	.00	1.1	.00	.00
30	.00	.00	.00	.00	---	6.4	.00	.00	.00	.79	.00	.00
31	.00	---	.00	.00	---	10	---	.00	---	.04	.00	---
TOTAL	.00	24.21	.00	.00	314.00	221.2	175.29	.00	.00	6.20	21.84	.00
MEAN	.000	.81	.000	.000	10.8	7.14	5.84	.000	.000	.20	.70	.000
MAX	.00	6.2	.00	.00	150	32	27	.00	.00	1.8	6.7	.00
MIN	.00	.00	.00	.00	.00	1.2	.00	.00	.00	.00	.00	.00
AC-FT	.00	48	.00	.00	623	439	348	.00	.00	12	43	.00

CAL YR 1979 TOTAL 4067.09 MEAN 11.1 MAX 296 MIN .00 AC-FT 8070
WTR YR 1980 TOTAL 762.74 MEAN 2.08 MAX 150 MIN .00 AC-FT 1510

06772500 WOOD RIVER NEAR CHAPMAN, NE

LOCATION.--Lat 40°57'56", long 98°12'22", in NE1/4SE1/4 sec.34, T.12 N., R.8 W., Merrick County, Hydrologic Unit 10200102, at county road bridge 2.5 mi (4.0 km) west and 4.0 mi (6.4 km) south of center of Chapman.

DRAINAGE AREA.--700 mi² (1,810 km²), approximately.

PERIOD OF RECORD.--Water year 1968 to September 1980 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT										
30...	0840	38	319	7.2	11.5	40	7.5	39	--	K49000
NOV										
29...	1000	7.9	1090	7.6	.5	15	11.0	26	K99000	16000
DEC										
19...	1100	7.7	1120	7.7	5.5	6	9.3	18	59000	6800
JAN										
10...	1155	12	1070	7.5	1.0	8	9.3	20	K85000	K23000
FEB										
21...	0925	18	1100	7.3	4.0	25	8.4	3.6	K52000	K27000
MAR										
05...	0945	23	856	7.4	.5	35	10.1	41	35000	18000
APR										
03...	1245	133	629	7.5	7.0	90	8.6	17	K100	19000
MAY										
23...	0920	20	1170	7.5	17.0	9	4.6	14	K130000	13000
JUN										
25...	1350	25	1080	7.4	30.0	6	5.8	7.0	K100	230
JUL										
16...	1030	22	1130	7.5	26.0	15	4.6	12	K72000	2600
AUG										
28...	1140	7.5	1230	7.8	24.5	8	6.8	3.3	30000	1000
SEP										
17...	0935	3.6	1350	7.8	10.5	10	8.9	--	K140000	7400

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT										
30...	30	210	.29	21.5	2.0	.46	2.7	3.2	5.2	2.000
NOV										
29...	98	724	.98	15.4	9.1	.88	2.4	3.3	12	4.600
DEC										
19...	100	756	1.03	15.7	3.1	3.8	.30	4.1	7.2	4.600
JAN										
10...	93	714	.97	23.1	5.8	1.5	2.4	3.9	9.7	3.800
FEB										
21...	130	650	.88	31.6	2.0	6.6	3.2	9.8	12	1.900
MAR										
05...	96	525	.71	32.6	2.4	7.3	3.7	11	13	2.400
APR										
03...	36	441	.60	158	2.4	1.5	2.9	4.4	6.8	1.600
MAY										
23...	140	724	.98	39.1	.58	6.9	4.1	11	12	3.500
JUN										
25...	130	670	.91	45.2	.20	3.8	2.4	6.2	6.4	2.100
JUL										
16...	140	699	.95	41.5	.58	5.0	1.1	6.1	6.7	10.000
AUG										
28...	130	795	1.08	16.1	8.5	.03	1.6	1.6	10	1.700
SEP										
17...	190	850	1.16	8.26	9.3	2.4	1.6	4.0	13	4.800

06772500 WOOD RIVER NEAR CHAPMAN, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLOR (PLAT-INUM COBALT UNITS) (00080)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
OCT											
30...	0840	50	79	16	24	4.6	25	1.2	11	63	39
JAN											
10...	1155	13	280	89	82	18	120	3.1	17	190	220
APR											
03...	1245	60	220	60	65	14	49	1.4	17	160	130
JUL											
16...	1030	5	290	76	85	18	130	3.3	14	210	170

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)
OCT										
30...	.2	8.4	190	2.0	1.600	2	50	160	<1	0
JAN										
10...	.7	26	712	4.7	1.300	--	--	230	--	--
APR										
03...	.4	19	438	2.4	1.100	3	100	100	<1	0
JUL										
16...	.7	27	714	.56	.100	--	--	170	--	--

DATE	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG) (71895)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
OCT										
30...	5	150	5	60	.1	.1	.0	1	0	20
JAN										
10...	--	30	--	110	--	--	--	--	--	--
APR										
03...	6	90	0	50	.1	.1	.0	3	0	10
JUL										
16...	--	30	--	40	--	--	--	--	--	--

06774000 PLATTE RIVER NEAR DUNCAN, NE
(National stream-quality accounting network station)

LOCATION.--Lat 41°22'04", long 97°29'40", in SE1/4SW1/4 sec.12, T.16 N., R.2 W., Platte County, Hydrologic Unit 10200103, on left bank 25 ft (8 m) downstream from highway bridge, 1.5 mi (2.4 km) south of Duncan, and 12 mi (19 km) upstream from Loup River.

DRAINAGE AREA.--60,900 mi^2 (157,700 km^2), approximately, of which about 56,100 mi^2 (145,300 km^2) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1895 to December 1909 (irrigation seasons only 1895-1900), July 1910 to December 1911 (gage heights and discharge measurements only), April 1912 to September 1915, June 1928 to current year. Published as "near Columbus" 1895-1915.

REVISED RECORDS.--WSP 956: 1935. WSP 1390: 1897, 1899-1901, 1903-5, 1929-32, 1935(M), 1936. WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,478.82 ft (450.744 m) National Geodetic Vertical Datum of 1929. June 1895 to December 1909, April 1912 to September 1915, and June to October 1928 nonrecording gage at site 7 mi (11 km) downstream at different datums. Oct. 25, 1928, to Feb. 20, 1935, nonrecording gage at present site and datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 44,100 ft^3/s (1,250 m^3/s) June 23, 1905, gage height, 6.50 ft (1.981 m), site and datum then in use; no flow at times in 1896, 1902, 1904-5, 1910-11, 1913-14, 1928, all at site downstream, 1931, 1933-42, 1944, 1952-57, 1959, 1963, 1974, 1976, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15,500 ft^3/s (439 m^3/s) June 5, gage height, 5.14 ft (1.567 m); minimum daily, 12 ft^3/s (0.34 m^3/s) Aug. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	296	1360	880	2200	1100	3900	5160	4800	12500	1200	43	189
2	317	1040	1000	2100	1300	3800	5100	4730	12600	1030	45	143
3	328	899	1250	2100	1700	4000	5840	4730	11900	1030	36	119
4	317	832	1300	2000	2000	4000	6190	4830	12100	1010	26	88
5	296	849	1300	2000	1900	3800	5940	5210	14200	917	19	76
6	276	870	1300	1900	1900	4500	5890	5660	12000	829	19	69
7	257	890	1350	1800	1800	5800	5600	6050	10900	719	12	70
8	247	865	1400	1700	2100	6400	5430	6020	10000	630	13	92
9	257	783	1500	1600	2000	7000	5380	5760	9010	570	16	147
10	266	724	1590	1500	2200	7200	5400	5790	8110	492	20	155
11	276	712	1740	1500	2200	6900	5370	6060	7200	430	147	172
12	286	712	1900	1500	2400	6600	5590	6640	6570	372	112	190
13	296	730	1680	1700	2600	6000	5670	7600	6220	331	97	193
14	296	714	1620	1900	2900	5400	5250	9420	5700	290	104	196
15	306	709	1590	2100	3000	4790	5620	11000	5640	266	130	210
16	317	712	1400	2200	3000	4010	5460	11300	5050	257	419	210
17	328	720	1600	2500	3000	3810	5260	11100	4550	235	442	217
18	328	728	2300	2700	3300	3690	5130	11100	4260	227	397	219
19	350	734	2900	2900	3600	3450	4750	11000	4060	215	330	234
20	350	806	3100	2900	4000	3200	4450	10800	4180	178	296	240
21	350	1010	3000	3000	4200	3200	4410	10300	4170	148	346	246
22	350	1140	3000	3000	4500	3110	4120	9550	4800	115	548	288
23	372	1190	2900	3100	4700	2960	3960	9450	5080	98	659	373
24	372	1180	3100	3100	4800	2890	3920	10000	5040	90	688	452
25	350	1110	3200	2900	4600	2910	4060	10300	4110	93	591	483
26	328	1080	3100	2400	4700	3080	4230	10300	3480	111	466	531
27	316	1060	2900	1800	4800	3250	4480	10600	2860	83	404	559
28	343	1000	2700	1500	4800	3400	4630	11500	2320	73	356	592
29	384	800	2600	1200	5000	4160	4670	12200	1870	64	297	607
30	917	900	2500	900	---	5350	4770	12200	1470	55	259	597
31	1480	---	2400	980	---	5650	---	12100	---	48	259	---
TOTAL	11552	26859	64100	64680	90100	138210	151730	268100	201950	12206	7596	7957
MEAN	373	895	2068	2086	3107	4458	5058	8648	6732	394	245	265
MAX	1480	1360	3200	3100	5000	7200	6190	12200	14200	1200	688	607
MIN	247	709	880	900	1100	2890	3920	4730	1470	48	12	69
AC-FT	22910	53270	127100	128300	178700	274100	301000	531800	400600	24210	15070	15780

CAL YR 1979 TOTAL 494099 MEAN 1354 MAX 7900 MIN 102 AC-FT 980000
WTR YR 1980 TOTAL 1045040 MEAN 2855 MAX 14200 MIN 12 AC-FT 2073000

PLATTE RIVER BASIN

06774000 PLATTE RIVER NEAR DUNCAN, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1965 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1977 to current year.
WATER TEMPERATURES: November 1977 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,080 micromhos Feb. 14, 19, 20, 28, Apr. 16, 1980; minimum daily, 290 micromhos Mar. 21, 1978.
WATER TEMPERATURES: Maximum, 33.0°C July 10, 11, 1980; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,080 micromhos Feb. 14, 19, 20, 28, Apr. 16; minimum daily, 614 micromhos Oct. 30.
WATER TEMPERATURES: Maximum, 33.0°C July 10, 11; minimum, 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT											
24...	1630	387	860	8.3	14.5	20	17	10.6	3.3	K42	140
NOV											
15...	0950	694	778	8.1	3.5	15	13	12.4	2.5	K71	K380
DEC											
06...	1230	1300	750	8.0	.5	25	18	12.6	6.0	K38	680
JAN											
17...	1045	2490	930	8.0	1.0	25	3.7	13.0	2.7	K28	124
FEB											
07...	0930	1890	1100	7.9	.0	5	1.8	12.2	3.5	K92	92
MAR											
19...	1030	3540	1110	8.1	5.0	25	28	13.2	2.4	K10	K140
APR											
09...	1325	5380	910	8.3	11.0	20	17	13.5	5.4	2200	80
MAY											
16...	1230	11400	940	7.7	13.0	15	13	8.7	2.9	93	520
JUN											
12...	1030	6900	903	8.5	21.0	35	32	7.8	4.0	K170	650
JUL											
24...	1130	89	998	8.3	25.0	6	3.4	7.4	2.8	K30	K100
AUG											
14...	0900	101	895	7.5	20.0	15	14	7.1	5.4	1600	2400
SEP											
24...	1515	450	975	8.7	21.5	45	42	10.7	8.9	K120	150

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
OCT										
24...	260	85	66	22	80	2.2	13	170	250	33
NOV										
15...	270	85	70	22	76	2.0	12	180	220	24
DEC										
06...	250	77	66	20	67	1.9	15	170	210	24
JAN										
17...	300	150	79	25	86	2.2	12	150	270	32
FEB										
07...	380	160	100	31	100	2.2	13	220	330	41
MAR										
19...	390	190	100	33	110	2.4	11	200	340	44
APR										
09...	320	130	85	25	76	1.9	13	190	240	31
MAY										
16...	320	140	85	26	80	1.9	13	180	280	31
JUN										
12...	300	120	77	25	78	2.0	11	180	250	35
JUL										
24...	300	110	76	26	88	2.2	12	190	260	37
AUG										
14...	250	100	64	23	83	2.3	13	150	230	34
SEP										
24...	260	96	63	24	93	2.5	11	160	240	33

06774000 PLATTE RIVER NEAR DUNCAN, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
OCT 24...	.5	20	611	587	.83	638	.05	.05	.05	.01
NOV 15...	.4	25	488	564	.66	914	3.0	1.5	.10	.03
DEC 06...	.5	23	541	532	.74	1980	--	.96	.04	.04
JAN 17...	.5	26	684	627	.93	4600	1.5	1.4	.04	.01
FEB 07...	.5	28	804	782	1.09	4100	1.4	1.4	.03	.01
MAR 19...	.6	26	815	794	1.11	7790	1.0	--	.06	.04
APR 09...	.5	23	665	613	.90	9660	1.2	1.2	.25	.06
MAY 16...	.7	22	672	648	.91	20700	.30	.28	.02	.02
JUN 12...	.8	23	640	610	.87	11900	.3[illegible]	.32	.13	.00
JUL 24...	.7	24	691	638	.94	166	.00	.00	.00	.00
AUG 14...	.7	22	583	560	.79	159	.01	.01	.00	.00
SEP 24...	.6	23	531	584	.72	645	.00	.00	.00	.00

DATE	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N) (00624)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
OCT 24...	1.3	.47	1.3	.82	.48	1.4	.53	.140	.040	9.6
NOV 15...	1.7	.85	1.8	.92	.88	4.8	2.4	.140	.120	--
DEC 06...	.96	.65	1.0	.31	.69	--	1.7	.220	.090	6.3
JAN 17...	1.2	1.2	1.2	.00	1.3	2.7	2.7	.160	.130	7.9
FEB 07...	1.2	.57	1.2	.62	.58	2.6	2.0	.110	.090	--
MAR 19...	1.1	.64	1.2	.52	.68	3.3	--	.290	.290	14
APR 09...	1.3	.93	1.5	.51	.99	2.7	2.2	.240	.200	10
MAY 16...	1.2	1.2	1.2	.27	.93	1.5	1.5	.100	.060	--
JUN 12...	1.2	.27	1.3	1.0	.27	1.6	.62	.240	.130	11
JUL 24...	1.1	1.1	1.0	.00	1.1	1.0	1.1	.140	.070	10
AUG 14...	3.1	.44	3.1	2.7	.44	3.1	.46	.200	.050	--
SEP 24...	1.9	1.1	1.9	.80	1.1	1.9	1.1	.250	.030	22

DATE	TIME	ARSENIC SUS-PENDED TOTAL (UG/L AS AS) (01001)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA) (01006)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD) (01026)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR) (01031)
NOV 15...	0950	0	4	200	100	100	--	14	13	<1	0	0
DEC 06...	1230	--	--	--	--	--	--	--	--	--	--	--
FEB 07...	0930	1	3	--	--	100	--	0	0	<1	10	10
MAR 19...	1030	--	--	--	--	--	--	--	--	--	--	--
MAY 16...	1230	2	3	100	10	90	180	1	0	1	0	0
JUN 12...	1030	--	--	--	--	--	--	--	--	--	--	--
AUG 14...	0900	1	4	100	20	80	--	1	0	1	0	0
SEP 24...	1515	--	--	--	--	--	--	--	--	--	--	--

06774000 PLATTE RIVER NEAR DUNCAN, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO) (01036)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU) (01041)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE) (01044)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)
NOV 15...	0	0	0	<3	2	1	1	470	460	10	4
DEC 06...	--	--	--	--	--	--	--	--	--	--	--
FEB 07...	0	0	0	<3	2	0	2	140	120	20	3
MAR 19...	--	--	--	--	--	--	--	--	--	--	--
MAY 16...	0	0	0	<3	5	0	5	560	500	60	5
JUN 12...	--	--	--	--	--	--	--	--	--	--	--
AUG 14...	0	2	0	<3	4	2	2	400	390	10	4
SEP 24...	--	--	--	--	--	--	--	--	--	--	--

DATE	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB) (01050)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN) (01054)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG) (71895)	MERCURY DISSOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI) (01066)	NICKEL, DISSOLVED (UG/L AS NI) (01065)
NOV 15...	4	0	170	120	50	.0	.0	.0	3	3	0
DEC 06...	--	--	--	--	--	--	--	--	--	--	--
FEB 07...	3	0	30	20	10	.1	.1	.0	3	1	2
MAR 19...	--	--	--	--	--	--	--	--	--	--	--
MAY 16...	4	1	70	50	20	.6	.4	.2	5	0	5
JUN 12...	--	--	--	--	--	--	--	--	--	--	--
AUG 14...	2	2	250	230	20	.2	.1	.1	5	2	3
SEP 24...	--	--	--	--	--	--	--	--	--	--	--

DATE	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE) (01146)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG) (01076)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN) (01091)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED (MG/L AS C) (00689)
NOV 15...	2	1	1	0	0	0	20	10	7	19	.7
DEC 06...	--	--	--	0	--	--	--	--	--	--	--
FEB 07...	2	0	2	0	0	0	30	20	10	5.6	.4
MAR 19...	--	--	--	0	--	--	--	--	--	--	--
MAY 16...	2	0	2	0	0	0	30	30	<3	16	1.3
JUN 12...	--	--	--	0	--	--	--	--	--	--	--
AUG 14...	1	1	0	0	0	0	30	20	8	7.3	4.0
SEP 24...	--	--	--	0	--	--	--	--	--	--	--

06774000 PLATTE RIVER NEAR DUNCAN, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

DATE	NOV 15,79	MAR 19,80	MAY 16,80	JUN 12,80
TIME	0950	1030	1230	1030
TOTAL CELLS/ML	19000	930	8600	66000
DIVERSITY: DIVISION	1.4	1.1	1.3	1.3
.CLASS	1.4	1.1	1.3	1.3
..ORDER	1.8	1.6	2.0	1.4
...FAMILY	2.8	2.9	2.4	1.6
....GENUS	3.4	3.0	3.0	2.6

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	--	-	--	-	--	-	--	-
...CHLOROCOCCACEAE								
....CHLOROCOCCUM	270	1	--	-	--	-	--	-
...HYDRODICTYACEAE								
....PEDIASTRUM	550	3	180#	19	--	-	--	-
...MICRACTINIACEAE								
....GOLENKINIA	--	-	--	-	--	-	--	-
....MICRACTINIUM	270	1	51	6	100	1	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	960	5	26	3	200	2	*	0
....CHLORELLA	690	4	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	200	2	930	1
....GLOEOACTINIUM	820	4	--	-	--	-	--	-
....KIRCHNERIELLA	270	1	--	-	--	-	--	-
....OOCYSTIS	140	1	--	-	50	1	930	1
....SELENASTRUM	--	-	--	-	100	1	1900	3
....TETRAEDRON	*	0	--	-	--	-	--	-
....TREUBARIA	--	-	--	-	--	-	--	-
....WESTELLA	--	-	--	-	200	2	--	-
...SCENEDESMACEAE								
....ACTINASTRUM	--	-	--	-	400	5	3100	5
....SCENEDESMUS	3700#	20	100	11	2400#	28	18000#	27
....TETRASTRUM	270	1	51	6	--	-	4300	7
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	*	0	100	11	450	5	620	1
...VOLVOCACEAE								
....PANDORINA	--	-	--	-	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	960	5	26	3	2200#	25	9000	13
....MELOSIRA	270	1	--	-	500	6	23000#	35
....SKELETONEMA	890	5	--	-	--	-	--	-
..PENNALES								
...ACHNANTHACEAE								
....COCCONEIS	*	0	--	-	--	-	--	-
...FRAGILARIACEAE								
....FRAGILARIA	5400#	28	280#	31	--	-	--	-
....SYNEDRA	--	-	--	-	--	-	--	-
...GOMPHONEMATACEAE								
....GOMPHONEMA	--	-	13	1	--	-	--	-
...MERIDIONACEAE								
....MERIDION	--	-	13	1	--	-	--	-
...NAVICULACEAE								
....NAVICULA	340	2	13	1	100	1	--	-
...NITZSCHIACEAE								
....NITZSCHIA	690	4	51	6	1200	14	620	1
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOCHRYSIDACEAE								
....CHROOMONAS	--	-	--	-	50	1	--	-
...CRYPTOMONADACEAE								
....CRYPTOMONAS	--	-	--	-	50	1	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....AGMENELLUM	1900	10	--	-	--	-	--	-
....ANACYSTIS	140	1	--	-	450	5	3700	6
..HORMOGONALES								
...NOSTOCACEAE								
....APHANIZOMENON	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE								
....LYNGBYA	--	-	--	-	--	-	--	-
....OSCILLATORIA	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	13	1	--	-	--	-
....TRACHELOMONAS	*	0	--	-	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)								
.DINOPHYCEAE								
..PERIDINIALES								
...GLENODINIACEAE								
....GLENODINIUM	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06774000 PLATTE RIVER NEAR DUNCAN, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

DATE	JUL 24,80	AUG 14,80	SEP 24,80
TIME	1130	0900	1515
TOTAL CELLS/ML	160000	100000	220000
DIVERSITY: DIVISION	1.1	1.2	1.5
.CLASS	1.1	1.2	1.5
..ORDER	1.6	1.7	2.1
...FAMILY	2.8	2.4	3.0
....GENUS	3.5	3.1	3.6

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...CHARACIACEAE						
....SCHROEDERIA	*	0	*	0	*	0
...CHLOROCOCCACEAE						
....CHLOROCOCCUM	--	-	--	-	--	-
...HYDRODICTYACEAE						
....PEDIASTRUM	19000	12	4300	4	13000	6
...MICRACTINIACEAE						
....GOLENKINIA	3600	2	*	0	--	-
....MICRACTINIUM	14000	9	--	-	12000	5
...OOCYSTACEAE						
....ANKISTRODESMUS	*	0	1800	2	1900	1
....CHLORELLA	--	-	--	-	--	-
....DICTYOSPHAERIUM	15000	9	41000#	39	7700	4
....GLOEOACTINIUM	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	--	-
....OOCYSTIS	*	0	5500	5	*	0
....SELENASTRUM	--	-	810	1	*	0
....TETRAEDRON	--	-	--	-	*	0
....TREUBARIA	--	-	--	-	*	0
....WESTELLA	--	-	--	-	--	-
...SCENEDESMACEAE						
....ACTINASTRUM	24000	15	3300	3	--	-
....SCENEDESMUS	29000#	18	7700	8	58000#	26
....TETRASTRUM	1200	1	--	-	3900	2
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	2100	1	*	0	4500	2
...VOLVOCACEAE						
....PANDORINA	4800	3	3300	3	--	-
CHRYSOPHYTA						
.BACILLARIOPHYCEAE						
..CENTRALES						
...COSCINODISCACEAE						
....CYCLOTELLA	7800	5	2200	2	11000	5
....MELOSIRA	11000	7	810	1	12000	6
....SKELETONEMA	--	-	--	-	--	-
..PENNALES						
...ACHNANTHACEAE						
....COCCONEIS	--	-	--	-	*	0
...FRAGILARIACEAE						
....FRAGILARIA	--	-	--	-	--	-
....SYNEDRA	--	-	--	-	*	0
...GOMPHONEMATACEAE						
....GOMPHONEMA	--	-	--	-	--	-
...MERIDIONACEAE						
....MERIDION	--	-	--	-	--	-
...NAVICULACEAE						
....NAVICULA	*	0	*	0	*	0
...NITZSCHIACEAE						
....NITZSCHIA	19000	12	8800	8	5500	2
CRYPTOPHYTA (CRYPTOMONADS)						
.CRYPTOPHYCEAE						
..CRYPTOMONADALES						
...CRYPTOCHRYSIDACEAE						
....CHROOMONAS	--	-	--	-	*	0
...CRYPTOMONADACEAE						
....CRYPTOMONAS	*	0	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..CHROOCOCCALES						
...CHROOCOCCACEAE						
....AGMENELLUM	2400	1	4900	5	26000	12
....ANACYSTIS	5400	3	13000	12	26000	12
..HORMOGONALES						
...NOSTOCACEAE						
....APHANIZOMENON	--	-	--	-	16000	7
...OSCILLATORIACEAE						
....LYNGBYA	--	-	--	-	10000	5
....OSCILLATORIA	--	-	5500	5	7100	3
EUGLENOPHYTA (EUGLENOIDS)						
.EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
....EUGLENA	--	-	--	-	--	-
....TRACHELOMONAS	--	-	--	-	*	0
PYRRHOPHYTA (FIRE ALGAE)						
.DINOPHYCEAE						
..PERIDINIALES						
...GLENODINIACEAE						
....GLENODINIUM	*	0	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06774000 PLATTE RIVER NEAR DUNCAN, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	LENGTH OF EXPO-SURE (DAYS) (00022)	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS) (70950)	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2) (70958)	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M (00572)
MAY							
01...	0920	22	.00	.000	.000	.000	.130
20...	1345	20	.00	.520	.000	.230	.230
AUG							
14...	0900	30	449	15.6	3.39	34.9	27.9

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)
JUL					
15...	0900	989	8.4	24.0	7.5
15...	1100	991	8.5	24.0	7.7
15...	1300	970	8.5	24.0	8.2
15...	1500	988	8.6	25.0	8.2
15...	1700	966	8.7	29.0	7.4
15...	1900	946	8.6	30.0	7.5
15...	2100	962	8.7	29.0	6.4
JUL					
15...	2300	954	8.7	27.5	6.0
16...	0100	950	8.6	25.5	6.3
16...	0300	954	8.5	24.0	6.3
16...	0500	958	8.5	23.0	6.8
16...	0700	962	8.5	22.5	7.3
16...	0900	978	8.4	23.0	7.8

06774000 PLATTE RIVER NEAR DUNCAN, NE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	855	646	855	911	1020	1040	994	990	950	971	938	918
2	867	818	919	873	1030	1040	885	928	945	975	940	920
3	850	654	911	985	1030	1040	1020	920	855	981	963	870
4	860	810	800	990	1040	1040	807	970	874	975	949	860
5	868	819	791	985	1040	1040	715	892	858	987	950	858
6	865	815	829	983	1030	1050	875	990	876	980	947	848
7	868	823	899	960	1040	1030	788	960	950	981	938	838
8	878	822	909	960	1040	1020	777	960	872	982	938	867
9	878	820	904	958	1030	1020	875	970	958	980	959	818
10	875	820	909	956	880	1020	875	960	877	989	937	867
11	872	820	911	953	885	1020	868	965	950	991	949	865
12	872	822	895	955	884	1020	878	970	882	994	949	859
13	872	841	853	952	884	1020	1060	970	968	976	940	868
14	835	819	794	950	1080	1010	1070	950	875	994	950	867
15	835	813	795	950	883	1020	1060	1000	955	991	934	858
16	828	851	912	948	883	1030	1080	975	887	990	940	856
17	868	850	779	948	886	1050	1070	978	683	1000	945	865
18	840	850	890	960	882	1030	1020	900	949	989	969	859
19	846	849	919	963	1080	1020	1020	893	878	977	980	863
20	834	850	796	968	1080	1020	1020	620	950	995	964	858
21	828	851	910	960	890	1030	985	880	868	994	937	835
22	839	849	910	956	882	1040	988	618	873	993	955	841
23	848	849	918	959	885	865	984	940	947	995	949	840
24	860	849	911	960	887	860	985	920	870	1000	949	845
25	827	850	903	962	885	865	985	920	942	985	950	838
26	860	851	901	1030	882	855	983	925	930	995	925	835
27	865	855	900	1030	880	860	1010	920	945	996	949	837
28	840	849	902	1020	1080	855	1060	921	945	989	954	838
29	845	850	900	1030	1070	860	1060	918	940	991	955	838
30	614	850	900	1040	---	860	1060	920	930	995	944	837
31	615	---	908	1030	---	860	---	919	---	994	942	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.0	7.0	1.0	.0	.0	.0	5.5	16.0	20.0	26.5	30.0	19.0
2	25.0	7.5	1.0	.0	.0	.0	6.0	17.0	21.0	26.0	29.0	18.0
3	21.0	7.0	2.0	.0	.0	1.0	6.0	18.0	21.0	26.0	29.0	19.0
4	20.0	6.0	2.0	.0	.0	.5	7.5	18.0	22.0	27.0	28.0	19.0
5	19.0	4.0	1.0	.0	.0	.0	8.0	18.0	21.0	28.0	28.0	19.0
6	20.0	3.0	.5	.0	.0	.5	9.0	16.0	22.0	29.0	28.0	20.0
7	20.0	4.0	1.0	.0	.0	1.5	10.5	15.0	22.0	30.0	27.0	20.0
8	17.0	4.5	1.5	.0	.0	1.0	10.5	15.0	22.0	29.5	28.0	20.0
9	15.0	4.5	2.0	.0	.0	1.0	11.0	17.0	22.0	29.0	28.0	20.0
10	16.0	3.0	1.0	.0	.0	.5	12.0	15.0	21.5	33.0	26.5	19.0
11	18.0	3.5	.5	.0	.0	.5	11.0	15.0	21.0	33.0	26.0	20.0
12	17.0	4.0	.5	.0	.0	.5	11.0	15.5	21.0	29.0	24.0	20.0
13	16.0	3.5	1.0	.0	.0	1.0	10.0	15.5	21.5	31.0	24.0	20.0
14	20.0	4.5	1.0	.0	.0	1.5	12.0	16.0	22.0	32.0	20.0	20.0
15	20.0	4.5	.5	.0	.0	2.0	14.0	14.5	22.0	28.5	18.5	20.0
16	20.0	5.0	.5	.0	.0	2.0	13.0	13.0	23.0	29.5	25.0	19.0
17	20.0	5.0	2.0	.5	.0	2.0	16.0	14.0	23.0	29.5	24.0	20.0
18	20.0	4.0	3.0	.0	.0	2.5	16.0	15.0	23.5	30.0	23.0	20.0
19	18.0	2.5	2.0	.0	.0	5.0	18.0	14.0	24.0	30.5	24.0	20.0
20	15.0	1.5	2.0	.0	.0	4.5	18.0	15.0	25.0	30.0	24.0	20.0
21	12.0	1.5	1.0	.5	.5	4.5	17.0	15.0	25.0	28.5	24.0	20.0
22	10.0	1.0	.5	.0	.5	5.0	18.0	15.0	24.0	28.5	23.0	20.0
23	12.0	1.5	.5	.5	.5	4.5	18.0	15.0	24.0	29.0	23.0	19.0
24	12.0	1.5	.5	.5	1.0	4.0	16.0	17.0	24.0	25.0	23.0	21.5
25	12.0	2.0	.5	.5	.5	4.0	16.0	15.0	24.0	25.0	23.5	20.0
26	12.0	1.5	1.0	.0	1.0	3.0	15.5	19.0	24.0	24.0	20.0	20.0
27	12.0	1.0	.5	.0	1.5	4.0	17.0	18.0	23.5	25.0	20.0	19.0
28	11.5	.5	.0	.0	2.0	4.5	17.0	18.0	24.0	26.0	19.0	19.0
29	10.0	.5	.0	.0	1.0	4.0	18.0	24.0	24.0	29.0	19.0	18.0
30	7.0	1.0	.0	.0	---	4.5	17.0	20.0	24.5	29.0	19.0	19.0
31	6.0	---	.0	.0	---	5.5	---	20.0	---	27.0	18.0	---

06774000 PLATTE RIVER NEAR DUNCAN, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE, WATER (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)
NOV 15...	0950	694	3.5	124	232	--	--	--	--	--
DEC 06...	1230	1300	.5	136	477	44	75	90	100	--
MAR 19...	1030	3540	5.0	196	1870	73	77	87	100	--
APR 09...	1325	5380	11.0	270	3920	32	38	62	97	100
MAY 16...	1230	11400	13.0	1980	60900	4	10	20	46	96
JUN 12...	1030	6900	21.0	1150	21400	20	28	36	49	100
JUL 24...	1130	89	25.0	28	6.7	--	--	--	--	--
AUG 14...	0900	101	20.0	38	10	72	83	92	100	--
SEP 25...	0930	470	14.0	153	194	84	88	95	100	--

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	NUMBER OF SAM-PLING POINTS (00063)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)
NOV 15...	0950	694	6	--	0	9	44	74	83	95	99	100
DEC 06...	1230	1300	4	--	0	5	27	73	86	93	97	100
MAR 19...	1030	3540	3	--	0	5	33	65	85	97	99	100
APR 09...	1440	5380	3	--	0	2	27	61	83	97	100	--
MAY 16...	1230	11400	3	--	0	5	33	78	91	97	99	100
JUN 12...	1030	6900	3	--	0	3	18	60	79	93	98	100
JUL 24...	1130	89	5	--	0	5	31	74	88	98	100	--
AUG 14...	0900	101	6	--	0	11	33	70	84	94	98	100
SEP 25...	0930	470	6	0	1	11	31	67	86	95	99	100

PLATTE RIVER BASIN

06775500 MIDDLE LOUP RIVER AT DUNNING, NE

LOCATION.--Lat 41°49'50", long 100°06'00", in NW1/4SE1/4 sec.33, T.22 N., R.24 W., Blaine County, Hydrologic Unit 10210001, on left bank just upstream from bridge on State Highway 2 at northeast corner of Dunning, 1 mi (2 km) upstream from Dismal River.

DRAINAGE AREA.--1,850 mi² (4,790 km²), approximately, of which about 80 mi² (210 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1945 to current year.

REVISED RECORDS.--WDR NE-72: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,607.14 ft (794.656 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 12, 1946, nonrecording gage, and Sept. 12, 1946, to Sept. 30, 1962, water-stage recorder at site 0.2 mi (0.3 km) upstream at datum 0.03 ft (0.009 m) higher.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--35 years, 399 ft³/s (11.30 m³/s), 289,100 acre-ft/yr (0.356 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,020 ft³/s (28.9 m³/s) Apr. 20, 1971, gage height, 2.50 ft (0.762 m); maximum gage height, 7.02 ft (2.140 m) Mar. 31, 1949, backwater from ice, site and datum then in use; minimum daily discharge, 100 ft³/s (2.83 m³/s) Dec. 5, 6, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 764 ft³/s (21.6 m³/s) Apr. 11, gage height, 2.00 ft (0.610 m); maximum gage height, 4.05 ft (1.234 m) Jan. 10, backwater from ice; minimum daily discharge, 240 ft³/s (6.80 m³/s) Jan. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	366	429	380	429	340	451	460	435	440	370	389	401
2	371	392	420	435	360	410	486	442	470	368	387	395
3	372	402	400	420	360	424	486	427	438	361	379	385
4	374	400	415	435	370	453	478	430	426	359	382	394
5	377	453	460	430	380	422	487	420	422	373	382	390
6	362	401	475	420	380	432	496	410	418	382	377	392
7	362	397	480	370	370	404	543	414	425	384	377	393
8	372	426	460	380	360	416	582	402	402	383	385	397
9	373	410	465	270	340	420	606	406	395	396	401	397
10	366	428	476	240	360	438	663	415	381	394	420	394
11	367	413	450	270	410	433	699	421	383	390	459	395
12	371	413	430	300	420	456	628	431	388	374	415	398
13	386	396	410	380	390	446	598	426	390	377	401	396
14	369	407	420	440	380	443	554	420	394	383	407	395
15	374	411	430	500	360	452	535	435	428	394	440	402
16	382	407	330	440	340	479	547	454	429	392	475	401
17	381	425	350	435	350	456	495	464	436	396	437	404
18	378	416	380	425	358	436	493	427	425	400	414	387
19	391	425	399	430	375	424	482	413	422	409	407	387
20	399	460	420	410	403	431	480	416	445	412	426	397
21	432	486	432	450	529	426	479	420	429	413	428	402
22	448	380	451	410	492	438	461	415	432	414	394	400
23	402	430	457	390	448	431	453	406	411	409	384	393
24	405	410	462	405	446	426	452	408	402	424	388	385
25	397	390	453	410	429	417	446	405	397	459	395	380
26	404	398	456	380	448	417	453	405	397	413	444	374
27	413	412	466	350	467	425	444	394	395	407	416	361
28	416	360	454	330	521	525	436	398	379	400	403	364
29	433	320	445	340	522	460	435	407	373	395	405	377
30	490	330	449	340	---	404	442	520	370	392	407	372
31	497	---	444	310	---	427	---	458	---	389	404	---
TOTAL	12230	12227	13419	11974	11708	13522	15299	13144	12342	12212	12636	11708
MEAN	395	408	433	386	404	436	510	424	411	394	408	390
MAX	497	486	480	500	529	525	699	520	470	459	475	404
MIN	362	320	330	240	340	404	435	394	370	359	377	361
AC-FT	24260	24250	26620	23750	23220	26820	30350	26070	24480	24220	25060	23220

CAL YR 1979 TOTAL 151851 MEAN 416 MAX 601 MIN 290 AC-FT 301200
WTR YR 1980 TOTAL 152421 MEAN 416 MAX 699 MIN 240 AC-FT 302300

06775500 MIDDLE LOOP RIVER AT DUNNING, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1950-56, 1965 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1949 to September 1956, October 1965 to current year.
SUSPENDED SEDIMENT DISCHARGE: March 1950 to September 1952, October 1953 to September 1956.

INSTRUMENTATION.--Temperature recorder from Oct. 1, 1965.

EXTREMES FOR PERIOD OF RECORD.--
WATER TEMPERATURES: Maximum, 26.0°C June 21, 1956; minimum, 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily, 3,000 mg/L Feb. 23, 1952; minimum daily, 50 mg/L Jan. 23, 1952.
SEDIMENT LOADS: Maximum daily, 9,140 tons (8,300 tonnes) Mar. 31, 1952; minimum daily, 21 tons (19 tonnes) Jan. 23, 1952.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 29.5°C Aug. 7; minimum, 0.0°C on several days during winter period.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	---	[illegible]	[illegible]
31	[illegible]	[illegible]	---	---	[illegible]	[illegible]	[illegible]	[illegible]	---	---	[illegible]	[illegible]
MONTH	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	---	---	[illegible]	[illegible]	---	---	[illegible]	[illegible]	[illegible]	[illegible]	---	---
MONTH	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

PLATTE RIVER BASIN

06775900 DISMAL RIVER NEAR THEDFORD, NE
(Hydrologic bench-mark station and Radiochemical program)

LOCATION.--Lat 41°46'45", long 100°31'30", in SE1/4NW1/4 sec.23, T.21 N., R.28 W., Thomas County, Hydrologic Unit 10210002, on right bank 1,400 ft (427 m) downstream (revised) from bridge on U.S. Highway 83, 2 mi (3 km) upstream from boundary of Nebraska National Forest (Bessey Division), and 14 mi (23 km) south of Thedford.

DRAINAGE AREA.--960 mi² (2,490 km²), approximately, of which about 30 mi² (78 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,800.13 ft (853.480 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

AVERAGE DISCHARGE.--14 years, 192 ft³/s (5.437 m³/s), 139,100 acre-ft/yr (0.172 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 335 ft³/s (9.49 m³/s) July 28, 1967, gage height, 2.73 ft (0.832 m); maximum gage height, 2.94 ft (0.896 m) Dec. 31, 1968, backwater from ice; minimum daily discharge, 156 ft³/s (4.42 m³/s) Jan. 27, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 311 ft³/s (8.81 m³/s) June 16, gage height, 2.33 ft (0.710 m), from high-water mark; maximum gage height, 2.50 ft (0.762 m) Jan. 8, backwater from ice; minimum daily discharge, 162 ft³/s (4.59 m³/s) July 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	190	189	186	197	198	191	232	205	208	188	175	189
2	191	184	188	193	197	198	227	203	217	184	181	187
3	186	190	190	192	201	205	225	202	208	185	180	186
4	192	190	200	189	210	201	227	203	205	182	179	184
5	192	199	198	188	205	191	227	203	205	182	179	182
6	192	189	199	191	203	197	231	200	202	179	182	180
7	191	181	199	182	204	201	220	199	204	178	182	180
8	197	184	202	180	202	207	219	194	199	171	186	180
9	188	191	201	170	203	215	232	195	197	172	188	175
10	191	190	210	193	210	209	239	198	200	170	189	180
11	199	190	201	186	205	199	231	195	200	167	203	182
12	199	185	195	194	209	200	215	198	201	167	197	185
13	191	180	199	213	206	198	215	192	204	162	195	185
14	190	185	201	222	205	202	214	198	206	163	191	183
15	196	183	208	216	202	213	216	198	237	165	203	193
16	200	190	192	209	195	215	214	199	215	163	210	187
17	199	195	190	204	194	203	215	200	207	163	202	183
18	202	200	201	199	203	201	217	192	203	166	197	186
19	202	195	195	196	212	215	216	195	199	167	200	188
20	204	190	203	200	216	210	220	196	197	170	222	188
21	205	191	204	196	242	212	219	196	194	171	212	187
22	199	177	199	201	221	216	217	194	199	169	198	190
23	196	189	200	208	227	212	218	196	194	172	196	184
24	194	183	196	215	226	212	211	196	191	170	199	187
25	200	183	195	212	211	209	205	195	190	170	195	187
26	199	190	193	200	209	210	207	194	196	170	198	187
27	202	188	195	198	222	216	209	198	191	173	195	189
28	200	183	201	202	216	221	204	192	185	174	195	192
29	207	181	202	199	201	210	208	194	188	172	195	188
30	212	176	201	196	---	219	205	217	179	175	195	183
31	200	---	194	193	---	229	---	206	---	173	191	---
TOTAL	6104	5631	6140	6136	6053	6434	6555	6135	6013	5305	6010	5557
MEAN	197	188	198	198	209	208	219	198	200	171	194	185
MAX	212	200	210	222	242	229	239	217	237	188	222	193
MIN	186	176	186	170	194	191	204	190	179	162	175	175
AC-FT	12110	11170	12180	12170	12010	12760	13000	12170	11930	10600	11920	11020

CAL YR 1979 TOTAL 70785 MEAN 194 MAX 232 MIN 161 AC-FT 140400
WTR YR 1980 TOTAL 72111 MEAN 197 MAX 242 MIN 162 AC-FT 143000

06775900 DISMAL RIVER NEAR THEDFORD, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1968 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS (MG/L AS CACO3) (00900)
NOV 20...	0905	194	165	7.5	5.0	11.3	77	K42	100	66
JAN 03...	1010	194	175	7.5	4.0	12.0	K25	K25	250	67
MAR 25...	1000	204	172	7.3	7.5	10.9	1100	K3	130	66
MAY 28...	0950	192	174	7.6	18.0	8.2	2200	K53	220	69
JUL 29...	1340	178	176	7.6	24.0	8.8	67	K33	180	69
SEP 11...	1030	181	174	7.4	17.5	8.6	1200	110	200	66

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
NOV 20...	0	21	3.2	7.0	.4	4.6	69	12	1.1	.3
JAN 03...	0	22	2.9	7.2	.4	4.8	80	7.0	1.1	.3
MAR 25...	0	21	3.4	6.9	.4	4.8	76	9.1	.6	.3
MAY 28...	0	22	3.3	7.1	.4	5.0	73	7.4	.8	.3
JUL 29...	0	22	3.5	6.9	.4	5.1	80	6.7	.8	.5
SEP 11...	0	21	3.3	7.0	.4	5.1	82	7.7	.7	.3

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHOPH OSPHATE DISSOL. (MG/L AS P) (00671)
NOV 20...	56	146	147	.20	76.5	.65	.64	.180	.12
JAN 03...	58	159	154	.22	83.3	.56	.55	.210	.16
MAR 25...	53	156	147	.21	85.9	.43	.43	.190	.11
MAY 28...	58	158	150	.21	81.9	.41	.38	.210	.14
JUL 29...	57	153	152	.21	73.5	.31	.31	.190	.16
SEP 11...	57	141	153	.19	68.9	.38	.36	.730	.11

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS) (01001)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA) (01006)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)
NOV 20...	0905	6	1	5	200	150	50	<1	0	<1	0
MAY 28...	0950	7	2	5	100	50	50	<1	0	<1	0

06775900 DISMAL RIVER NEAR THEDFORD, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR) (01031)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE) (01044)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB) (01050)
NOV 20...	0	1	<3	2	<10	1100	1100	<10	4	--
MAY 28...	0	0	<3	1	<10	1100	1100	16	0	0

DATE	LEAD, DISSOLVED (UG/L AS PB) (01049)	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN) (01054)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG) (71895)	MERCURY DISSOLVED (UG/L AS HG) (71890)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	SELENIUM, TOTAL (UG/L AS SE) (01147)
NOV 20...	--	11	60	60	1	.1	.1	.0	<10	0
MAY 28...	0	11	50	50	3	.1	.1	.0	<10	0

DATE	SELENIUM, SUSPENDED TOTAL (UG/L AS SE) (01146)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG) (01076)	SILVER, DISSOLVED (UG/L AS AG) (01075)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	VANADIUM, DISSOLVED (UG/L AS V) (01085)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	CYANIDE TOTAL (MG/L AS CN) (00720)
NOV 20...	0	0	0	0	0	120	<6.0	10	<3	.00
MAY 28...	0	0	1	1	0	120	11	20	<3	.00

DATE	TIME	GROSS ALPHA, DISSOLVED (PCI/L AS U-NAT) (01515)	GROSS ALPHA, SUSP. TOTAL (PCI/L AS U-NAT) (01516)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L) (09511)
NOV 20...	0905	1.4	1.8	2.0	2.6	4.3	2.2	4.4	2.3	.07

DATE	URANIUM DISSOLVED, EXTRACTION (UG/L) (80020)	PERTHANE TOTAL (UG/L) (39034)	PCB, TOTAL (UG/L) (39516)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG) (39519)	ALDRIN, TOTAL (UG/L) (39330)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39333)	CHLORDANE, TOTAL (UG/L) (39350)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39351)	DDD, TOTAL (UG/L) (39360)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG) (39363)
NOV 20...	.28	.00	.0	0	.00	.0	.0	0	.00	.0

06775900 DISMAL RIVER NEAR THEDFORD, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	DDE, TOTAL (UG/L) (39365)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39368)	DDT, TOTAL (UG/L) (39370)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG) (39373)	DIAZINON, TOTAL (UG/L) (39570)	DIELDRIN TOTAL (UG/L) (39380)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39383)	ENDOSULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39393)
NOV										
20...	.00	.0	.00	.0	.00	.00	.0	.00	.00	.0

DATE	ETHION, TOTAL (UG/L) (39398)	HEPTACHLOR, TOTAL (UG/L) (39410)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG) (39413)	HEPTACHLOR EPOXIDE TOTAL (UG/L) (39420)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE TOTAL (UG/L) (39340)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG) (39343)	MALATHION, TOTAL (UG/L) (39530)	METHOXYCHLOR, TOTAL (UG/L) (39480)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)
NOV										
20...	.00	.00	.0	.00	.0	.00	.0	.00	.00	.0

DATE	METHYL PARATHION, TOTAL (UG/L) (39600)	METHYL TRITHION, TOTAL (UG/L) (39790)	PARATHION, TOTAL (UG/L) (39540)	TOXAPHENE, TOTAL (UG/L) (39400)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39403)	TOTAL TRITHION (UG/L) (39786)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	MIREX, TOTAL (UG/L) (39755)	SILVEX, TOTAL (UG/L) (39760)
NOV										
20...	.00	.00	.00	0	0	.00	.00	.00	.00	.00

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE, WATER (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)
JUN												
17...	1245	209	19.5	636	359	10	17	17	35	63	95	100

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	NUMBER OF SAMPLING POINTS (00063)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)
JUN								
17...	1245	209	27	0	11	40	85	100

PLATTE RIVER BASIN

06776500 DISMAL RIVER AT DUNNING, NE

LOCATION.--Lat 41°49'23", long 100°06'05", in sec.4, T.21 N., R.24 W., Blaine County, Hydrologic Unit 10210002, on right bank 100 ft (30 m) downstream from bridge on State Highway 2 at southeast corner of Dunning and 1 mi (2 km) upstream from mouth.

DRAINAGE AREA.--2,040 mi^2 (5,280 km^2), approximately, of which about 45 mi^2 (120 km^2) contributes directly to surface runoff.

PERIOD OF RECORD.--March to June 1932, September 1945 to current year.

REVISED RECORDS.--WSP 2118: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,606.3 ft (794.40 m) National Geodetic Vertical Datum of 1929. Mar. 1 to June 30, 1932, nonrecording gage at site 0.2 mi (0.3 km) upstream at datum 0.5 ft (0.15 m) lower. Sept. 13, 1945 to Apr. 19, 1956, nonrecording gage on bridge 100 ft (30 m) upstream at present datum.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--35 years (1945-80), 322 ft^3/s (9.119 m^3/s), 233,300 acre-ft/yr (0.288 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,170 ft^3/s (33.1 m^3/s) Aug. 25, 1977, gage height, 2.06 ft (0.628 m); maximum gage height observed, 5.21 ft (1.588 m) Jan. 19, 1947, backwater from ice; minimum daily discharge, 100 ft^3/s (2.83 m^3/s) Jan. 25, 1950, Jan. 9, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 571 ft^3/s (16.2 m^3/s) Aug. 10, gage height, 1.27 ft (0.387 m); maximum gage height, 2.75 ft (0.838 m) Jan. 10, backwater from ice; minimum daily discharge, 210 ft^3/s (5.95 m^3/s) Jan. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	304	309	280	315	280	340	345	320	330	313	304	320
2	310	323	300	320	300	341	340	310	365	310	309	325
3	313	307	310	304	300	338	375	315	340	316	312	325
4	293	320	305	313	310	360	375	315	330	320	303	320
5	298	375	330	321	320	320	442	315	320	310	299	320
6	297	307	325	300	320	320	466	315	320	320	296	330
7	302	327	320	244	310	330	454	320	330	310	289	335
8	308	332	310	235	300	335	419	305	300	313	305	330
9	288	321	320	225	280	335	375	315	300	314	324	315
10	289	319	345	210	300	340	414	315	305	308	424	320
11	298	318	315	225	320	355	365	315	305	304	390	331
12	302	334	290	245	330	360	330	315	305	303	352	342
13	289	338	280	270	320	335	325	315	320	303	330	325
14	287	346	300	310	310	355	325	315	325	310	323	323
15	307	358	290	340	300	375	320	345	370	314	375	332
16	314	360	270	330	290	360	305	345	370	306	398	347
17	310	366	260	340	270	320	290	335	329	305	373	330
18	330	363	300	330	290	325	310	315	335	296	332	328
19	337	356	320	335	310	340	310	300	322	310	322	332
20	360	367	335	343	350	330	320	315	325	307	323	342
21	365	325	350	343	440	310	315	325	332	308	372	340
22	310	328	345	326	420	315	310	310	338	306	337	328
23	310	332	335	342	413	305	305	305	334	313	321	315
24	310	331	320	355	397	310	300	310	328	323	321	320
25	310	320	325	354	355	300	305	310	325	452	330	311
26	325	295	320	320	362	305	305	300	323	347	374	308
27	315	295	320	290	385	305	305	300	316	335	340	318
28	315	280	305	270	387	355	310	300	309	334	336	330
29	340	280	310	280	356	330	315	325	305	319	340	323
30	360	270	315	280	---	305	315	370	312	311	325	308
31	393	---	305	250	---	335	---	365	---	301	320	---
TOTAL	9789	9802	9655	9265	9625	10289	10290	9880	9768	9841	10399	9773
MEAN	316	327	311	299	332	332	343	319	326	317	335	326
MAX	393	375	350	355	440	375	466	370	370	452	424	347
MIN	287	270	260	210	270	300	290	300	300	296	289	308
AC-FT	19420	19440	19150	18380	19090	20410	20410	19600	19370	19520	20630	19380

CAL YR 1979 TOTAL 122058 MEAN 334 MAX 500 MIN 220 AC-FT 242100
WTR YR 1980 TOTAL 118376 MEAN 323 MAX 466 MIN 210 AC-FT 234800

06777000 MIDDLE LOUP RIVER NEAR MILBURN, NE

LOCATION.--Lat 41°49'02", long 99°58'15", in NE1/4SW1/4 sec.3, T.21 N., R.23 W., Blaine County, Hydrologic Unit 10210003, at Laughram bridge 9 mi (14 km) upstream from Rifle Creek and 15 mi (24 km) northwest of Milburn.

DRAINAGE AREA.--3,690 mi^2 (9,560 km^2), approximately, of which 135 mi^2 (350 km^2) contritutes directly to surface runoff.

PERIOD OF RECORD.--Water year 1970 to September 1980 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPERATURE, WATER (DEG C) (00010)	TURBIDITY (JTU) (00070)	OXYGEN, DISSOLVED (MG/L) (00300)
OCT							
30...	1220	871	160	7.2	6.0	20	11.6
NOV							
19...	1345	828	168	7.4	9.0	15	11.1
DEC							
11...	1310	863	173	7.4	.5	20	11.5
JAN							
02...	1605	786	172	7.4	2.0	15	12.7
FEB							
12...	1115	863	177	7.1	.5	20	13.5
MAR							
24...	1255	788	181	7.4	6.0	15	11.3
APR							
14...	1305	919	227	7.6	13.5	30	9.6
MAY							
27...	1140	736	177	7.7	22.0	15	8.6
JUN							
16...	1130	786	177	7.5	23.0	30	8.1
JUL							
29...	0940	691	175	7.5	23.0	10	8.9
AUG							
20...	1320	733	177	7.8	24.5	15	7.6
SEP							
10...	1300	700	175	7.1	16.5	10	8.6

DATE	TIME	COLOR (PLATINUM COBALT UNITS) (00080)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)
FEB											
12...	1115	20	69	0	22	3.3	7.5	.4	5.5	80	6.4
JUL											
29...	0940	10	69	0	22	3.3	7.0	.4	5.9	92	4.6

DATE	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
FEB											
12...	1.0	.2	60	158	.21	368	.78	.110	28	20	2
JUL											
29...	1.5	.5	59	161	.22	300	.49	.140	70	20	3

06778500 MIDDLE LOUP RIVER NEAR COMSTOCK, NE

LOCATION.--Lat 41°28'49", long 99°12'43", in NE1/4NE1/4NE1/4 sec.1, T.17 N., R.17 W., Custer County, Hydrologic Unit 10210003, at bridge on Custer-Valley County line 0.3 mi (0.5 km) downstream from diversions for canals 3 and 4, 1.3 mi (2.1 km) south of Burlington Northern Inc. crossing, and 5.5 mi (8.8 km) southeast of Comstock.

DRAINAGE AREA.--4,650 mi² (12,000 km²), approximately, of which 430 mi² (1,110 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--Water year 1969 to September 1980 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)
OCT							
24...	1205	473	184	7.1	8.5	15	12.2
NOV							
14...	1130	1160	193	7.4	4.0	45	11.6
DEC							
05...	1245	1860	180	7.3	1.5	35	12.8
JAN							
17...	1420	956	175	7.2	1.0	15	13.6
FEB							
05...	1200	1750	190	7.1	.5	8	13.2
MAR							
20...	1450	1160	204	7.4	11.0	45	10.4
APR							
07...	1120	1390	205	7.4	11.0	30	11.1
MAY							
19...	1145	379	204	7.4	19.0	10	9.4
JUN							
09...	1455	584	202	7.9	24.5	15	8.4
JUL							
24...	1630	28	249	8.4	31.5	4	8.0
AUG							
14...	1600	30	268	8.5	28.0	3	8.8
SEP							
02...	1650	30	213	7.9	27.5	5	7.6

DATE	TIME	COLOR (PLAT-INUM COBALT UNITS) (00080)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
FEB											
05...	1200	10	75	0	24	3.6	7.3	.4	5.8	89	8.4
JUL											
24...	1630	5	110	0	36	5.2	8.2	.3	7.4	120	7.3

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
FEB											
05...	1.0	.2	54	161	.22	761	.71	.150	30	20	3
JUL											
24...	1.2	.4	61	199	.27	15.2	.02	.100	70	20	20

06779000 MIDDLE LOUP RIVER AT ARCADIA, NE

LOCATION.--Lat 41°25'20", long 99°08'10", in sec.26, T.17 N., R.16 W., Valley County, Hydrologic Unit 10210003, on left bank 80 ft (24 m) downstream from bridge on State Highway 70 at southwest edge of Arcadia.

DRAINAGE AREA.--5,040 mi² (13,100 km²), approximately, of which about 820 mi² (2,120 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1937 to current year.

REVISED RECORDS.--WDR NE-72: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,146.30 ft (654.192 m) National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service, formerly Bureau of Reclamation). Prior to Apr. 23, 1938, nonrecording gage at bridge just upstream at datum 1.23 ft (0.375 m) lower.

REMARKS.--Records fair except those for winter period, which are poor. Middle Loup Public Power and Irrigation District began diversion above station Mar. 30, 1938. Farwell Irrigation District canal began diversion from river in November 1962 at point 8 mi (13 km) above station.

AVERAGE DISCHARGE.--18 years (1962-80), 647 ft³/s (18.32 m³/s), 468,800 acre-ft/yr (0.578 km³/yr) since diversion to Farwell Irrigation District canal.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge estimated, about 18,500 ft³/s (524 m³/s) June 22, 1947, gage height, 6.24 ft (1.902 m); maximum discharge computed, 9,700 ft³/s (275 m³/s) May 27, 1945, gage height, 5.12 ft (1.561 m); maximum gage height, 6.41 ft (1.954 m) Mar. 27, 1960, backwater from ice; minimum daily discharge, 6.0 ft³/s (0.17 m³/s) July 23, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,260 ft³/s (64.0 m³/s) Mar. 29, gage height, 2.50 ft (0.884 m); maximum gage height, 4.21 ft (1.283 m) Jan. 14, backwater from ice; minimum daily discharge, 16 ft³/s (0.45 m³/s) Aug. 1, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	692	922	620	620	800	560	1200	410	499	53	16	49
2	704	632	1000	720	1000	640	1350	420	525	44	20	33
3	728	620	1500	840	1300	900	1500	430	632	76	17	34
4	784	692	2100	900	1500	1160	1400	440	564	62	31	33
5	740	992	1850	880	1750	760	940	430	577	52	45	36
6	569	1290	1750	900	1600	820	1100	440	538	46	25	39
7	469	1210	1650	400	1400	940	1300	450	551	48	17	39
8	391	1180	1550	140	1250	1120	1280	499	590	47	16	44
9	398	1230	1350	150	1100	1300	1130	460	590	42	24	58
10	426	1180	1160	170	1200	1100	901	525	556	38	37	44
11	372	1150	940	250	1060	940	1100	577	476	42	90	44
12	324	1080	860	400	1000	880	957	499	473	25	39	48
13	388	1080	840	600	1060	1060	757	590	408	20	32	61
14	436	1080	900	800	1040	1140	583	395	218	19	31	68
15	432	1020	1000	1250	960	1150	496	434	330	27	71	70
16	419	894	700	1100	840	1200	465	486	410	27	72	72
17	465	1070	300	880	800	1260	580	731	395	28	140	90
18	480	1070	300	940	1100	1090	507	623	319	34	64	126
19	521	1040	800	860	1400	1120	440	407	202	36	43	150
20	477	981	1500	800	1650	1150	500	382	182	28	82	252
21	499	900	1400	1000	1600	1240	560	197	182	38	35	182
22	656	800	1300	900	1650	1250	540	162	208	28	43	202
23	512	1000	1250	1160	1600	1080	500	117	166	36	46	274
24	485	1250	1180	1500	1800	1100	520	126	130	30	34	296
25	444	1160	1100	1000	1700	1100	520	150	85	33	30	333
26	460	1100	1060	600	2100	980	507	150	72	78	51	361
27	494	1050	1000	430	1990	1160	500	171	62	119	121	350
28	530	1000	940	350	1770	1400	494	187	46	30	103	315
29	560	960	840	400	1470	1830	439	154	43	18	74	366
30	1050	840	740	500	---	1580	420	252	53	24	42	384
31	1200	---	660	560	---	1180	---	499	---	17	56	---
TOTAL	17105	30473	34140	22000	39490	34190	23486	11793	10082	1245	1547	4453
MEAN	552	1016	1101	710	1362	1103	783	380	336	40.2	49.9	148
MAX	1200	1290	2100	1500	2100	1830	1500	731	632	119	140	384
MIN	324	620	300	140	800	560	420	117	43	17	16	33
AC-FT	33930	60440	67720	43640	78330	67820	46580	23390	20000	2470	3070	8830

CAL YR 1979 TOTAL 257147 MEAN 705 MAX 4200 MIN 71 AC-FT 510100
WTR YR 1980 TOTAL 230004 MEAN 628 MAX 2100 MIN 16 AC-FT 456200

06779000 MIDDLE LOUP RIVER AT ARCADIA, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977-80.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPERATURE, WATER (DEG C) (00010)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)
OCT										
10...	1350	382	200	7.9	13.0	80	0	26	3.7	6.9
JUN										
05...	1630	730	210	8.4	31.0	77	0	25	3.6	7.7
AUG										
13...	1345	29	310	8.5	28.0	140	0	44	6.4	8.1

DATE	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)
OCT									
10...	.3	6.5	87	.3	59	167	168	.23	172
JUN									
05...	.4	7.2	91	.3	58	--	165	.22	325
AUG									
13...	.3	8.1	140	.3	55	--	222	.30	17.4

06783500 MUD CREEK NEAR SWEETWATER, NE

LOCATION.--Lat 41°02'15", long 98°59'35", in NE1/4SE1/4 sec.3, T.12 N., R.15 W., Buffalo County, Hydrologic Unit 10210005, on right bank 12 ft (4 m) downstream from bridge on State Highway 2, 0.9 mi (1.4 km) southeast of Sweetwater, and 11.6 mi (18.7 km) upstream from mouth.

DRAINAGE AREA.--707 mi² (1,831 km²), of which 655 mi² (1,696 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1946 to current year.

REVISED RECORDS.--WDR NE-72: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,013.69 ft (613.773 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor. Minor irrigation developments above station.

AVERAGE DISCHARGE.--34 years, 39.9 ft³/s (1.130 m³/s), 28,910 acre-ft/yr (35.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge estimated, about 27,000 ft³/s (765 m³/s) June 22, 1947, gage height, 23.20 ft (7.071 m); maximum discharge computed, 5,600 ft³/s (159 m³/s) June 24, 1968, gage height, 20.07 ft (6.117 m); no flow at times in 1955-56.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1929, that of June 22, 1947, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 120 ft³/s (3.40 m³/s) Feb. 20 at 2400, gage height, 9.90 ft (3.018 m), backwater from ice, no peak above base of 550 ft³/s (15.6 m³/s); minimum daily discharge, 0.14 ft³/s (0.004 m³/s) Aug. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	24	14	23	23	25	35	26	23	14	.80	22
2	13	26	17	24	25	29	37	25	26	12	1.2	10
3	13	24	20	25	27	33	45	26	34	8.7	.30	4.8
4	13	25	23	27	29	35	51	25	38	3.3	.94	4.9
5	12	22	22	25	32	31	49	26	26	.80	1.2	5.6
6	13	21	21	26	30	34	52	26	24	1.2	.30	5.9
7	12	21	20	18	28	37	45	25	21	.80	.37	6.7
8	13	21	20	13	26	40	42	24	19	.65	.46	6.2
9	13	24	21	14	23	42	41	24	19	.91	.14	6.5
10	13	18	22	16	26	48	37	24	19	.86	1.6	7.1
11	13	20	19	18	24	41	34	24	19	.98	2.0	7.5
12	13	21	16	21	22	35	33	23	20	.97	4.4	8.3
13	14	21	23	23	24	36	32	24	19	1.6	3.8	8.1
14	14	20	24	26	23	29	31	24	19	.51	3.9	8.8
15	15	20	24	28	22	29	30	24	20	1.2	4.2	7.2
16	15	21	18	25	21	30	30	25	21	.66	12	6.7
17	15	21	19	23	20	29	30	27	20	1.9	15	7.3
18	15	21	21	24	23	28	29	27	21	1.3	12	7.3
19	15	21	22	23	35	27	30	29	20	1.1	11	7.8
20	15	22	26	22	60	26	29	30	20	1.6	10	7.2
21	16	21	25	24	100	26	28	26	20	2.4	9.2	8.4
22	16	20	25	23	90	26	27	25	23	2.8	7.3	8.8
23	16	21	26	25	70	25	27	23	21	.59	7.8	9.0
24	16	23	25	28	60	25	26	23	20	1.3	7.5	8.9
25	17	22	26	24	66	25	26	22	20	1.1	6.6	10
26	17	20	25	18	50	26	26	22	20	.86	3.5	9.5
27	17	19	25	15	56	26	26	22	19	.87	3.4	9.4
28	16	18	24	16	40	31	26	21	17	.48	4.9	9.9
29	16	18	24	17	35	36	26	20	16	.83	4.8	9.7
30	18	16	23	19	---	39	26	20	14	.76	6.7	9.9
31	22	---	22	21	---	36	---	20	---	.79	9.9	---
TOTAL	458	632	682	674	1110	985	1006	752	638	67.82	157.21	249.4
MEAN	14.8	21.1	22.0	21.7	38.3	31.8	33.5	24.3	21.3	2.19	5.07	8.31
MAX	22	26	26	28	100	48	52	30	38	14	15	22
MIN	12	16	14	13	20	25	26	20	14	.48	.14	4.8
AC-FT	908	1250	1350	1340	2200	1950	2000	1490	1270	135	312	495

CAL YR 1979 TOTAL 10088.50 MEAN 27.6 MAX 140 MIN 5.0 AC-FT 20010
WTR YR 1980 TOTAL 7411.43 MEAN 20.2 MAX 100 MIN .14 AC-FT 14700

PLATTE RIVER BASIN

06783500 MUD CREEK NEAR SWEETWATER, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1978 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 09...	1020	12	581	8.1	10.0	20	9.3	4.7	300	960
NOV 20...	1220	22	588	8.1	3.5	15	11.6	2.7	140	4700
DEC 13...	1200	24	612	7.7	.5	15	12.4	2.0	250	1000
JAN 23...	1030	21	608	7.6	.5	10	12.5	4.5	K53	--
FEB 13...	1335	24	618	7.4	.5	10	10.6	2.4	K19	110
MAR 26...	1400	25	585	8.1	4.5	30	12.7	5.2	K3	150
APR 16...	1330	30	622	8.1	12.0	35	10.3	5.8	83	560
MAY 07...	1420	25	602	8.2	16.0	30	9.8	5.5	130	320
JUN 17...	1015	21	576	8.0	19.0	100	7.2	16	K3	2000
JUL 31...	1125	1.0	608	8.2	22.5	30	10.3	8.4	K2100	K10000
AUG 20...	1325	11	533	8.1	25.5	40	7.4	5.3	K3100	5200
SEP 10...	1155	6.7	576	8.1	16.5	30	10.4	4.6	K2050	3200

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT 09...	11	397	.54	12.9	.26	.04	.76	.80	1.1	.540
NOV 20...	13	390	.53	23.2	1.2	.13	.43	.56	1.8	.540
DEC 13...	13	447	.61	29.0	.94	.18	.68	.86	1.8	.060
JAN 23...	15	410	.56	23.2	.99	.12	1.3	1.4	2.4	.460
FEB 13...	10	429	.58	27.8	1.1	.28	.12	.40	1.5	.470
MAR 26...	10	393	.53	26.5	.71	.18	.75	.93	1.6	.660
APR 16...	11	424	.58	34.3	.83	.02	1.2	1.2	2.0	.900
MAY 07...	11	384	.52	25.9	.15	.04	.96	1.0	1.2	.730
JUN 17...	11	398	.54	22.6	1.2	.06	1.9	2.0	3.2	1.300
JUL 31...	6.6	411	.56	1.11	.54	.11	1.5	1.6	2.1	.820
AUG 20...	7.6	379	.52	11.3	.90	.11	1.4	1.5	2.4	.820
SEP 10...	8.6	349	.47	6.31	.59	.07	1.5	1.6	2.2	.030

06783500 MUD CREEK NEAR SWEETWATER, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLOR (PLATINUM COBALT UNITS) (00080)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)
NOV 20...	1220	15	280	0	90	14	18	.5	11	300	24
FEB 13...	1335	5	320	6	100	16	19	.5	11	310	26
MAY 07...	1420	30	310	0	97	16	18	.4	14	310	26
AUG 20...	1325	--	250	0	76	14	14	.4	17	260	27

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)
NOV 20...	.2	43	399	1.1	.430	6	200	60	<1	0
FEB 13...	.3	50	415	1.1	.380	--	--	60	--	--
MAY 07...	.3	32	402	.15	.600	10	200	80	<1	0
AUG 20...	.3	42	358	.89	.650	--	--	200	--	--

DATE	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG) (71895)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
NOV 20...	0	10	1	80	.0	.0	.0	2	0	<3
FEB 13...	--	10	--	110	--	--	--	--	--	--
MAY 07...	3	<10	3	50	.0	.0	.0	2	0	4
AUG 20...	--	<10	--	10	--	--	--	--	--	--

PLATTE RIVER BASIN

06784000 SOUTH LOUP RIVER AT ST. MICHAEL, NE

LOCATION.--Lat 41°01'53", long 98°44'25", in NE1/4NE1/4 sec.11, T.12 N., R.13 W., Buffalo County, Hydrologic Unit 10210004, 15 ft (5 m) upstream and 65 ft (20 m) right from right upstream corner of county highway bridge, 0.6 mi (1.0 km) northeast of St. Michael, and 3.4 mi (5.5 km) upstream from Sweet Creek.

DRAINAGE AREA.--2,350 mi^2 (6,090 km^2), approximately, of which about 1,610 mi^2 (4,170 km^2) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1943 to current year.

REVISED RECORDS.--WDR NE-74: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,921.26 ft (585.600 m) National Geodetic Vertical Datum of 1929. Prior to June 22, 1947, water-stage recorder, and June 25 to Sept. 30, 1947, nonrecording gage, at site 40 ft (12 m) downstream at datum 2.00 ft (0.610 m) higher. Oct. 1, 1947, to July 3, 1958, nonrecording gage at site 40 ft (12 m) downstream at present datum. July 4, 1958, to Sept. 7, 1960, water-stage recorder at site 560 ft (171 m) upstream at present datum. Sept. 8, 1960, to June 24, 1968, water-stage recorder at site 60 ft (18 m) upstream at present datum. June 25 to Nov. 21, 1968, nonrecording gage at site 40 ft (12 m) downstream at present datum.

REMARKS.--Records good except those for winter period, which are poor. Minor irrigation developments above station.

AVERAGE DISCHARGE.--37 years, 240 ft^3/s (6.797 m^3/s), 173,900 acre-ft/yr (0.214 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge estimated, about 50,000 ft^3/s (1,420 m^3/s) June 22, 1947, gage height, 12.0 ft (3.66 m), present datum, from graph based on gage readings; maximum discharge computed, 27,500 ft^3/s (779 m^3/s) June 24, 1968, gage height, 11.00 ft (3.353 m); no flow Aug. 5-8, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 619 ft^3/s (17.5 m^3/s) Apr. 4, gage height, 4.88 ft (1.487 m); maximum gage height, 10.61 ft (3.234 m) Feb. 21, ice jam; no flow Aug. 5-8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	100	220	130	165	190	48	392	188	180	54	10	66
2	103	212	160	170	215	100	436	188	201	54	7.7	85
3	104	201	190	185	240	170	516	192	210	62	4.4	65
4	108	195	220	190	270	230	534	188	249	51	.52	52
5	110	209	210	185	300	181	428	188	224	46	.00	52
6	109	216	205	190	280	235	365	180	192	45	.00	54
7	112	224	200	130	250	286	321	180	192	40	.00	51
8	114	220	195	80	220	306	339	176	188	32	.00	50
9	112	217	205	86	200	344	333	172	172	36	1.4	59
10	115	221	220	100	220	410	345	172	169	37	2.6	59
11	112	215	180	150	210	320	372	169	157	32	32	72
12	113	205	150	200	190	291	339	169	153	26	28	77
13	113	203	160	225	205	296	297	169	157	24	26	80
14	114	204	170	260	195	281	286	169	153	23	32	73
15	120	201	180	290	185	272	286	172	150	15	45	75
16	125	197	120	260	175	266	259	180	137	15	87	74
17	119	191	130	240	170	287	249	206	134	14	103	74
18	123	194	160	250	200	292	229	220	150	17	100	73
19	126	191	200	240	250	280	220	215	140	15	89	75
20	131	201	230	230	300	260	215	210	147	16	80	71
21	134	190	220	260	400	249	206	201	157	18	71	71
22	144	160	205	245	500	244	197	184	184	20	67	68
23	140	180	210	280	450	227	192	176	161	14	59	71
24	142	210	200	320	450	225	201	176	140	15	50	71
25	144	200	210	250	400	220	197	172	137	14	44	70
26	142	185	205	170	450	238	184	172	121	15	42	73
27	144	175	200	115	560	243	192	165	103	15	43	73
28	145	170	195	120	540	345	197	161	82	14	56	75
29	147	165	185	135	344	490	197	161	74	15	61	79
30	187	150	175	150	---	467	197	157	69	14	55	82
31	225	---	160	170	---	351	---	161	---	18	54	---
TOTAL	3977	5922	5780	6041	8559	8454	8721	5589	4683	822	1250.62	2070
MEAN	128	197	186	195	295	273	291	180	156	26.5	40.3	69.0
MAX	225	224	230	320	560	490	534	220	249	62	103	85
MIN	100	150	120	80	170	48	184	157	69	14	.00	50
AC-FT	7890	11750	11460	11980	16980	16770	17300	11090	9290	1630	2480	4110

CAL YR 1979 TOTAL 75931.00 MEAN 208 MAX 877 MIN 54 AC-FT 150600
WTR YR 1980 TOTAL 61868.62 MEAN 169 MAX 560 MIN .00 AC-FT 122700

[illegible]

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years [illegible]

PERIOD OF DAILY RECORD.--
[illegible]

EXTREMES FOR PERIOD OF DAILY RECORD.--
[illegible]

[illegible]

06784000 SHERMAN RESERVOIR NEAR LOUP CITY, NE

LOCATION.--Lat 41°19'10", long 98°52'45", in SW1/4NW1/4 sec.1, T.15 N., R.14 W., Sherman County, Hydrologic Unit 10210003, in control house of outlet works of Sherman Dam, 5 mi (8 km) northeast of Loup City.

ELEVATION AND CONTENTS RECORDS

PERIOD OF RECORD.--October 1962 to current year.

GAGE.--Mercury-column pressure gage read once daily. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by earthfill dam; closure date of dam, August 1960. First diversions from Middle Loup River, Nov. 8, 1962. Usable capacity, 65,227 acre-ft (80.4 hm³) between elevations 2,111.9 ft (643.72 m), sill of canal outlet works, and 2,162.2 ft (659.04 m), crest of spillway. Dead and inactive storage, 3,820 acre-ft (4.71 hm³) below elevation 2,111.9 ft (643.72 m). Figures given herein represent total contents. Water used for irrigation of Farwell Unit of Water and Power Resources Service.

COOPERATION.--Records of elevations and capacity table furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 70,230 acre-ft (86.6 hm³) June 22, 1975, elevation, 2,162.7 ft (659.19 m); minimum observed since appreciable storage was attained, 9,450 acre-ft (11.7 hm³) Sep. 2, 1980, elevation, 2,127.7 ft (648.52 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 69,650 acre-ft (85.9 hm³) June 3-7, elevation, 2,162.5 ft (659.13 m); minimum observed, 9,450 acre-ft (11.7 hm³) Sep. 2, elevation, 2,127.7 ft (648.52 m).

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	[illegible]	[illegible]	-
Oct. 31	[illegible]	[illegible]	[illegible]
Nov. 30	[illegible]	[illegible]	[illegible]
Dec. 31	[illegible]	[illegible]	[illegible]
CAL YR 1979	-	-	[illegible]
Jan. 31	[illegible]	[illegible]	[illegible]
Feb. 29	[illegible]	[illegible]	[illegible]
Mar. 31	[illegible]	[illegible]	[illegible]
Apr. 30	[illegible]	[illegible]	[illegible]
May 31	[illegible]	[illegible]	[illegible]
June 30	[illegible]	[illegible]	[illegible]
July 31	[illegible]	[illegible]	[illegible]
Aug. 31	[illegible]	[illegible]	[illegible]
Sept. 30	[illegible]	[illegible]	[illegible]
WTR YR 1980	-	-	[illegible]

06784200 SHERMAN RESERVOIR NEAR LOUP CITY, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977-80.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
OCT									
10...	1450	211	8.8	15.0	88	0	29	3.7	7.6
JUN									
05...	0840	260	8.1	21.0	92	0	29	4.8	9.5
AUG									
13...	1510	245	8.8	26.0	88	0	29	4.0	8.2

DATE	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)
OCT								
10...	.3	7.3	96	.3	52	175	171	.24
JUN								
05...	.4	7.5	110	.3	40	--	173	.24
AUG								
13...	.4	7.8	98	.4	47	--	166	.23

PLATTE RIVER BASIN

06784800 TURKEY CREEK NEAR DANNEBROG, NE

LOCATION.--Lat 41°09'24", long 98°33'22", in SW1/4NW1/4 sec.26, T.14 N., R.11 W., Howard County, Hydrologic Unit 10210003, on left bank 25 ft (8 m) downstream from bridge on State Highway 11, 2.8 mi (4.5 km) north of Dannebrog, and 10 mi (16 km) upstream from mouth.

DRAINAGE AREA.--66.2 mi² (171.5 km²).

PERIOD OF RECORD.--May 1966 to September 1970, October 1978 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,870.35 ft (570.083 m) National Geodetic Vertical Datum of 1929 (Water and Power Resources Service, formerly Bureau of Reclamation).

REMARKS.--Records good except those for winter period, which are poor. Low flow includes return water from Farwell Irrigation District.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,680 ft³/s (75.9 m³/s) June 14, 1967, gage height, 19.21 ft (5.855 m); no flow May 17-20, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 167 ft³/s (4.73 m³/s) June 1, gage height, 7.50 ft (2.286 m); minimum daily, 2.0 ft³/s (0.057 m³/s) Aug. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	---	[illegible]	[illegible]	---	[illegible]	---	[illegible]	---	[illegible]	[illegible]	---
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

[illegible]

06785000 MIDDLE LOUP RIVER AT ST. PAUL, NE

LOCATION (REVISED).--Lat 41°12'13", long 98°26'46", in SE1/4NW1/4NE1/4 sec.10, T.14 N., R.10 W., Howard County, Hydrologic Unit 10210003, on left bank at St. Paul, 20 ft (6 m) upstream from bridge on U.S. Highway 281 and 6 mi (10 km) upstream from confluence with North Loup River.

DRAINAGE AREA.--8,090 mi² (21,000 km²), approximately, of which about 3,130 mi² (8,110 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1894 to September 1915, August 1928 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1036: 1943. WSP 1390: 1896, 1903, 1928(M), 1944. WDR NE-72: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,776.61 ft (541.511 m) National Geodetic Vertical Datum of 1929. See WSP 1918 for history of changes prior to June 5, 1957. June 5, 1957 to Mar. 16, 1978, water-stage recorder on left bank 430 ft (131 m) upstream at same datum. Mar. 17 to May 31, 1978, nonrecording gage on railroad bridge 30 ft (9 m) upstream at same datum.

REMARKS.--Records good except those for winter periods, which are fair. Diversions above station for irrigation.

AVERAGE DISCHARGE.--73 years, 1,190 ft³/s (33.70 m³/s), 862,200 acre-ft/yr (1.06 hm³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 72,000 ft³/s (2,040 m³/s) June 23, 1947, gage height, 12.69 ft (3.868 m), site then in use, present datum, from rating curve extended above 55,000 ft³/s (1,560 m³/s); minimum daily since 1929, 23 ft³/s (0.65 m³/s) Aug. 9, 10, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,980 ft³/s (141 m³/s) Mar. 30, gage height, 3.78 ft (1.152 m); maximum gage height, 6.49 ft (1.978 m) Mar. 6, backwater from ice; minimum daily discharge, 23 ft³/s (0.65 m³/s) Aug. 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	860	1760	560	930	1000	1000	1760	652	730	201	116	342
2	860	1450	840	960	1250	1100	1950	670	916	181	112	276
3	840	1210	1300	1240	1600	1400	2000	680	920	218	65	253
4	860	1100	2000	1160	1650	2200	2450	683	1040	157	50	236
5	902	1230	2700	1100	2200	2000	1480	675	1000	170	35	176
6	890	1200	2600	1200	2000	1400	1620	680	906	169	29	173
7	758	1420	2200	[illegible]	[illegible]	[illegible]	1800	690	872	117	26	169
8	831	1460	2000	[illegible]	[illegible]	[illegible]	1720	713	806	108	28	138
9	[illegible]	1420	1650	[illegible]	1500	2200	1670	720	829	105	23	152
10	[illegible]	1380	1420	[illegible]	[illegible]	2700	[illegible]	760	840	108	23	156
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

[illegible]

06785000 MIDDLE LOUP RIVER AT ST. PAUL, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1969 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)
OCT							
11...	1530	603	321	8.1	21.0	--	--
NOV							
01...	1050	1770	260	7.9	4.0	55	12.9
26...	1440	1660	257	7.7	1.5	55	13.3
DEC							
10...	1320	1550	263	7.6	5.5	70	12.9
JAN							
08...	1400	1200	286	7.7	.5	40	13.9
FEB							
15...	1300	1190	284	7.3	.5	10	13.4
MAR							
24...	1440	1330	285	7.9	7.0	55	12.4
APR							
10...	1430	1190	326	8.0	13.0	60	10.6
MAY							
05...	1410	703	323	8.2	22.5	25	8.8
JUN							
04...	1715	975	305	7.9	27.0	--	--
18...	1245	701	298	8.2	26.5	35	8.2
JUL							
29...	1410	226	350	8.1	29.0	60	7.7
AUG							
07...	1325	29	500	8.5	30.5	20	8.7
15...	1030	245	368	7.6	19.0	--	--
18...	1625	350	332	8.6	29.0	95	9.6
SEP							
08...	1250	127	485	8.0	25.0	30	9.1

DATE	TIME	COLOR (PLAT-INUM COBALT UNITS) (00080)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
OCT												
11...	1530	--	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
FEB												
15...	1300	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
JUN												
04...	1715	--	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
AUG												
07...	1325	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15...	1030	--	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

DATE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
OCT											
11...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	--	--	--
FEB											
15...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
JUN											
04...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
AUG											
07...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
15...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

06786000 NORTH LOUP RIVER AT TAYLOR, NE

LOCATION.--Lat 41°46'37", long 99°22'45", in NE1/4SE1/4 sec.22, T.21 N., R.18 W., Loup County, Hydrologic Unit 10210006, on left bank 64 ft (20 m) downstream from bridge on U.S. Highway 183 and 0.4 mi (0.6 km) north of Taylor.

DRAINAGE AREA.--2,280 mi² (5,910 km²), approximately, of which about 180 mi² (470 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1936 to current year.

REVISED RECORDS.--WSP 856: 1937. WSP 1310: 1939(M). WSP 1730: 1956-57(M). WSP 1918: 1952. WDR NE-72: Drainage area. WDR NE-75: 1974.

GAGE.--Water-stage recorder. Datum of gage is 2,248.21 ft (685.254 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 28, 1938, nonrecording gage at same site and datum. Sept. 28, 1938, to July 16, 1958, water-stage recorder at site 450 ft (137 m) upstream at same datum.

REMARKS.--Records fair except those for winter period, which are poor. North Loup Public Power and Irrigation District canal began diversion from river in April 1939 at point 5 mi (8 km) above station. Several smaller diversions above station for irrigation.

AVERAGE DISCHARGE.--43 years (1937-80), 459 ft³/s (13.00 m³/s), 332,500 acre-ft/yr (0.410 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,870 ft³/s (81.3 m³/s) May 7, 1977, gage height, 5.98 ft (1.823 m), from floodmark, but may have been greater during ice breakup Mar. 10, 195[illegible]; maximum gage height, 9.5 ft (2.90 m) Feb. 25, 1957, ice jam, from floodmarks; minimum daily discharge, 45 ft³/s (1.27 m³/s) July 26, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,250 ft³/s (35.4 m³/s) Apr. 7, gage height, 4.98 ft (1.518 m); maximum gage height, 6.39 ft (1.948 m) Feb. 22, backwater from ice; minimum daily discharge, 100 ft³/s (2.83 m³/s) Jan. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	425	639	320	500	470	310	769	522	842	[illegible]	124	270
2	425	533	400	560	520	180	782	520	597	[illegible]	127	258
3	418	490	540	560	560	650	960	530	610	[illegible]	114	275
4	410	531	720	580	600	740	985	517	569	[illegible]	130	279
5	410	567	820	560	640	621	985	421	481	[illegible]	133	275
6	418	548	916	540	460	525	1090	370	432	[illegible]	127	271
7	448	530	775	420	480	621	1160	487	468	[illegible]	127	264
8	432	551	642	180	580	682	1060	394	421	[illegible]	133	290
9	410	550	508	160	560	694	730	390	425	[illegible]	156	281
10	410	517	632	190	540	663	730	390	439	[illegible]	281	277
11	460	565	600	220	540	609	720	397	626	[illegible]	396	292
12	448	565	390	300	560	666	666	449	622	[illegible]	312	310
13	442	570	400	400	540	686	598	456	610	[illegible]	259	341
14	425	593	460	520	560	689	528	487	626	[illegible]	227	345
15	455	616	470	460	540	750	528	586	617	[illegible]	259	346
16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	376	342
17	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	390	329
18	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	369	347
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	318	367
20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	254	366
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	---	[illegible]	[illegible]	---	[illegible]	---	[illegible]	---	[illegible]	[illegible]	---
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

[illegible]

06786000 NORTH LOUP RIVER AT TAYLOR, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1974 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1974 to current year.
WATER TEMPERATURES: July 1974 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 552 micromhos Mar. 2, 1977; minimum daily, 73 micromhos Nov. 16, 1978.
WATER TEMPERATURES: Maximum, 33.5°C July 9, 1980; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 249 micromhos Jan. 8; minimum daily, 133 micromhos Feb. 22.
WATER TEMPERATURES: Maximum, 33.5°C July 9; minimum, 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	COLOR (PLAT-INUM COBALT UNITS) (00080)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
OCT									
24...	1550	478	157	7.1	12.5	5	59	0	19
NOV									
13...	1510	556	158	7.4	6.5	10	63	0	20
DEC									
04...	1545	799	163	7.2	1.0	5	61	0	20
JAN									
16...	1340	712	143	7.2	1.0	15	55	0	18
FEB									
26...	1300	717	156	7.2	4.5	20	56	0	18
MAR									
17...	1130	736	169	7.4	6.0	15	66	0	21
APR									
08...	1545	1110	202	7.5	10.0	50	84	0	27
MAY									
20...	1530	476	165	7.7	23.0	20	66	0	21
JUN									
11...	1235	429	174	8.1	25.0	15	63	0	20
JUL									
31...	1510	138	182	8.2	30.0	25	72	0	23
AUG									
13...	1500	259	165	8.1	29.0	10	59	0	19
SEP									
03...	1510	282	163	8.1	28.0	20	62	0	20

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
OCT									
24...	2.6	5.0	.3	5.0	66	5.3	1.0	.3	55
NOV									
13...	3.2	6.0	.4	5.0	60	7.1	1.2	--	56
DEC									
04...	2.6	6.7	.4	5.2	75	6.0	1.0	.3	50
JAN									
16...	2.5	5.6	.3	5.3	60	6.5	1.1	.4	51
FEB									
26...	2.6	6.6	.4	5.2	65	1.3	1.3	.3	48
MAR									
17...	3.2	6.6	.3	5.3	70	6.6	1.5	.4	52
APR									
08...	4.0	12	.6	7.1	100	3.2	2.3	.3	46
MAY									
20...	3.5	6.3	.3	6.1	70	6.0	1.0	.4	55
JUN									
11...	3.2	6.4	.3	6.0	66	2.1	.7	.4	55
JUL									
31...	3.5	6.0	.3	6.5	60	2.6	.7	.4	44
AUG									
13...	2.9	6.0	.3	6.4	71	2.2	1.2	.3	55
SEP									
03...	2.9	6.4	.4	6.5	56	4.4	.6	.3	50

06786000 NORTH LOUP RIVER AT TAYLOR, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
OCT 24...	138	.19	178	.71	.130	.100	20	20	3
NOV 13...	145	.20	218	.97	.170	.120	20	30	2
DEC 04...	146	.20	315	.85	.220	.110	20	10	3
JAN 16...	135	.18	260	.78	.220	.140	10	20	4
FEB 26...	125	.17	242	.62	--	.160	20	90	3
MAR 17...	145	.20	288	.67	--	.210	30	20	2
APR 08...	160	.22	480	.32	--	.190	60	70	4
MAY 20...	143	.19	184	.01	--	.120	30	30	<3
JUN 11...	142	.19	164	.00	--	.140	40	30	<3
JUL 31...	163	.22	60.7	.02	--	.060	80	30	1
AUG 13...	136	.19	95.1	.11	--	.090	90	30	2
SEP 03...	144	.20	110	.04	.160	.100	80	20	1

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980 ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	167	158	190	182	194	199	189	178	171	188	184	168
2	162	153	189	173	178	195	174	170	169	188	203	189
3	164	159	171	185	171	173	166	169	175	188	199	167
4	166	158	162	180	172	177	173	178	175	189	190	169
5	162	146	151	178	172	174	184	185	189	191	187	167
6	160	164	168	189	172	175	193	171	196	182	187	173
7	167	160	150	207	172	168	212	170	186	188	191	168
8	163	158	156	209	172	167	220	175	212	189	187	163
9	162	159	167	209	175	163	225	172	178	196	170	169
10	160	157	172	208	172	164	227	174	170	191	175	169
11	159	160	163	192	172	173	225	175	173	190	156	172
12	161	159	183	194	161	173	225	170	174	198	163	171
13	160	162	181	189	167	169	224	173	172	199	172	168
14	160	160	182	173	162	169	225	174	161	201	170	167
15	168	163	168	173	166	170	217	174	165	191	167	165
16	160	158	207	159	175	175	210	172	175	185	167	167
17	156	161	216	156	175	176	213	172	175	187	167	167
18	158	161	185	160	170	171	192	175	175	196	160	173
19	158	167	178	173	157	172	190	173	175	201	167	165
20	156	152	162	162	151	176	195	173	176	199	173	168
21	155	155	164	161	156	171	193	172	176	188	176	167
22	156	156	169	162	155	173	187	170	176	185	165	166
23	163	161	176	177	165	170	188	175	176	188	170	167
24	150	162	176	173	166	170	175	175	176	185	177	165
25	158	160	168	165	157	170	187	176	176	188	176	165
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	---	[illegible]	[illegible]	---	[illegible]	---	[illegible]	---	[illegible]	[illegible]	---

06786000 NORTH LOUP RIVER AT TAYLOR, NE--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.0	6.0	2.0	4.5	.0	.0	9.0	21.0	18.0	29.0	32.0	24.5
2	20.0	7.5	1.0	3.0	.0	.0	10.0	22.5	26.5	27.0	32.5	24.5
3	15.5	7.0	4.0	2.0	.5	4.0	9.5	23.5	26.0	32.0	33.0	28.5
4	17.0	4.5	3.5	5.0	1.5	2.5	13.0	23.5	29.0	23.0	28.0	25.5
5	11.0	3.5	2.5	.0	.5	1.5	15.0	24.0	30.0	32.5	27.5	28.0
6	19.0	5.0	3.0	.0	.5	1.0	16.0	21.5	28.0	33.0	32.0	30.0
7	14.5	7.0	4.0	.0	2.0	4.0	15.5	19.0	26.0	31.5	32.0	24.0
8	12.0	5.0	2.0	.0	3.0	2.5	10.5	19.0	18.5	33.0	27.0	26.0
9	12.5	2.5	2.0	.0	2.0	4.5	13.0	18.5	27.0	33.5	31.5	21.0
10	16.0	4.0	3.5	2.0	2.0	9.0	13.0	23.0	28.0	28.0	21.5	19.5
11	18.5	5.5	1.0	.0	.5	9.0	12.0	13.0	27.0	33.0	29.5	25.0
12	13.5	6.0	1.0	2.0	2.0	4.0	12.5	12.0	29.5	30.0	29.0	25.0
13	8.5	6.5	3.0	2.0	.5	10.0	13.0	19.5	30.5	32.5	29.0	25.5
14	12.5	7.0	2.0	2.5	.0	12.5	15.0	21.0	27.0	32.5	28.0	26.0
15	18.0	7.5	2.5	1.5	.0	15.0	17.0	20.0	24.5	29.5	20.5	26.0
16	17.0	9.0	1.0	1.5	.0	9.0	13.0	17.0	26.0	29.5	29.5	16.0
17	16.0	10.5	1.0	2.0	1.0	10.0	17.0	12.0	26.5	30.5	25.0	21.0
18	15.0	7.0	1.5	.5	1.0	12.5	20.0	12.5	29.0	32.0	29.0	21.5
19	15.5	9.0	1.5	1.5	1.0	14.0	22.0	24.0	27.0	31.0	30.0	21.0
20	17.0	3.5	2.0	2.0	2.5	17.0	15.5	24.5	27.0	22.0	26.0	21.0
21	11.0	2.5	2.5	2.0	2.5	10.0	24.0	24.5	30.0	27.0	28.0	20.0
22	6.0	1.5	2.5	1.0	3.0	9.0	24.5	25.0	27.0	27.5	25.0	20.5
23	12.0	1.0	3.0	2.0	4.0	6.0	18.0	24.5	29.5	29.0	23.0	19.5
24	14.0	2.0	5.0	3.5	1.0	9.0	19.0	25.0	32.5	29.0	24.0	19.0
25	14.0	1.0	2.0	.0	4.0	7.0	19.0	19.5	29.0	25.0	28.0	18.0
26	12.0	1.5	7.0	.0	4.5	6.5	17.0	24.0	32.0	22.0	19.0	19.0
27	15.0	2.0	6.0	.0	5.0	8.0	13.5	26.0	27.5	25.5	24.0	21.0
28	9.0	1.0	5.0	.0	4.5	9.0	17.0	26.5	30.5	29.0	28.0	21.5
29	9.0	2.0	5.5	.0	.0	6.0	23.0	27.0	25.0	29.5	28.0	21.0
30	9.0	2.0	6.0	.0	---	11.0	21.0	26.5	28.0	29.0	28.5	22.0
31	3.5	---	4.5	.0	---	11.0	---	20.0	---	28.0	24.0	---

06787000 CALAMUS RIVER NEAR HARROP, NE

LOCATION.--Lat 41°56'48", long 99°23'10" in NW1/4SE1/4 sec.22, T.23 N., R.18 W., Loup County, Hydrologic Unit 10210008, on right bank 44 ft (13 m) upstream from bridge on U.S. Highway 183, 12.2 mi (19.6 km) north of Taylor.

DRAINAGE AREA.--983 mi² (2,546 km²), most of which does not contribute directly to surface runoff.

PERIOD OF RECORD.--March to July 1932. August 1931 to February 1932, July 1932 to June 1939, 1955-64 and 1977, gage heights or discharge measurements only. June 1978 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,260 ft (689 m) from topographic map. Prior to June 5, 1978 staff gage or reference point at same site at datum 1.0 ft (0.30 m) higher.

REMARKS.--Records excellent. Diversions for irrigation above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 488 ft³/s (13.8 m³/s) Apr. 5, 1980, gage height, 2.30 ft (0.701 m); minimum daily discharge, 90 ft³/s (2.55 m³/s) Jan. 7, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 488 ft³/s (13.8 m³/s) Apr. 5, gage height, 2.30 ft (0.701 m); minimum daily 90 ft³/s (2.55 m³/s) Jan. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	204	297	232	253	205	250	283	247	257	191	175	193
2	206	284	259	250	224	253	322	242	254	189	173	190
3	210	277	270	234	244	268	376	240	249	189	173	189
4	208	272	294	240	251	263	431	236	254	193	186	186
5	209	306	328	232	258	237	475	238	254	191	188	186
6	208	286	291	220	236	240	436	233	231	195	180	189
7	209	269	286	90	232	242	400	229	223	189	177	189
8	209	264	261	140	230	242	358	225	215	188	177	188
9	207	257	286	187	226	247	332	227	215	184	180	183
10	209	243	294	212	229	255	316	225	215	184	225	183
11	212	240	294	205	223	258	306	227	211	186	223	187
12	211	241	253	214	220	260	293	233	207	184	207	189
13	210	241	266	232	227	258	277	245	204	184	198	188
14	211	244	263	255	222	257	270	252	206	182	191	192
15	216	244	260	305	212	267	267	270	211	184	198	193
16	219	245	160	258	216	267	267	267	213	180	243	191
17	218	245	155	239	209	262	259	283	211	179	212	193
18	226	245	232	239	234	262	259	270	209	177	205	193
19	218	244	289	235	245	259	259	264	211	182	202	196
20	222	245	300	230	255	254	257	249	206	186	195	198
21	225	245	255	227	279	247	256	242	204	186	188	200
22	234	104	253	229	286	247	247	236	215	188	188	199
23	232	145	250	228	294	242	247	227	209	186	183	197
24	230	260	250	241	279	240	242	223	207	188	180	198
25	231	303	250	244	276	240	240	217	204	184	180	198
26	228	293	255	216	273	245	245	215	206	188	217	198
27	228	274	255	216	294	249	245	209	198	195	225	199
28	225	210	255	218	299	277	242	209	191	189	211	199
29	220	125	250	209	281	277	242	221	188	182	205	200
30	280	180	255	212	---	277	247	275	191	177	198	203
31	300	---	250	210	---	277	---	270	---	175	195	---
TOTAL	6900	7320	8095	6920	7159	7919	8896	7446	6469	5755	6078	5791
MEAN	223	244	261	223	247	255	297	240	216	186	196	193
MAX	300	306	328	305	299	277	475	283	257	195	243	203
MIN	204	104	155	90	205	237	240	209	188	175	173	183
AC-FT	13700	14520	16060	13730	14200	15710	17640	14770	12830	11420	12050	11490

CAL YR 1979 TOTAL 86499 MEAN 237 MAX 411 MIN 100 AC-FT 172000
WTR YR 1980 TOTAL 84756 MEAN 232 MAX 475 MIN 90 AC-FT 168100

06787500 CALAMUS RIVER NEAR BURWELL, NE

LOCATION.--Lat 41°48'35", long 99°10'56", in NW1/4NW1/4 sec.9, T.21 N., R.16 W., Garfield County, Hydrologic Unit 10210008, on left bank 210 ft (64 m) downstream from highway bridge, 1.5 mi (2.4 km) upstream from mouth, and 3 mi (5 km) northwest of Burwell.

DRAINAGE AREA.--1,060 mi² (2,750 km²), approximately, of which about 110 mi² (280 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1940 to current year.

REVISED RECORDS.--WSP 1918: 1958. WDR NE-72: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,156.48 ft (657.295 m) National Geodetic Vertical Datum of 1929 (levels by Water and Power Resources Service, formerly Bureau of Reclamation). Prior to Apr. 20, 1945, nonrecording gage at site 210 ft (64 m) upstream at present datum. Apr. 21, 1945, to Jan. 28, 1964, water-stage recorder at site 210 ft (64 m) downstream at present datum. Jan. 29, 1964 to Oct. 4, 1977, water-stage recorder at site 40 ft (12 m) downstream at present datum.

REMARKS.--Records good except those for winter period, which are fair. Diversions for irrigation above station.

AVERAGE DISCHARGE.--40 years, 300 ft³/s (8.496 m³/s), 217,400 acre-ft/yr (0.268 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,790 ft³/s (50.7 m³/s) May 4, 1964, gage height, 4.35 ft (1.326 m); maximum gage height, 5.90 ft (1.798 m) Jan. 26, 1967, backwater from ice; minimum daily discharge, 54 ft³/s (1.53 m³/s) Dec. 5, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 732 ft³/s (20.7 m³/s) Apr. 6, gage height, 3.92 ft (1.195 m); maximum gage height, 4.62 ft (1.408 m) Dec. 19, backwater from ice; minimum daily discharge, 170 ft³/s (4.81 m³/s) Jan. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	264	396	330	336	280	306	392	298	326	247	249	276
2	268	382	360	331	290	342	440	296	326	248	247	269
3	265	379	370	320	320	348	520	293	327	254	246	265
4	269	363	381	320	340	348	591	296	325	257	246	261
5	273	398	436	298	370	316	690	292	323	252	262	261
6	280	389	430	290	326	336	695	285	300	245	256	261
7	287	369	400	170	310	342	601	276	306	239	243	262
8	290	362	402	230	300	331	505	270	291	235	242	260
9	286	347	390	270	294	342	411	274	295	235	254	252
10	285	335	402	290	298	336	375	272	292	235	280	252
11	289	334	390	298	302	353	353	269	290	233	319	257
12	287	327	359	300	293	364	331	278	286	228	297	261
13	289	331	370	320	288	353	311	293	282	236	289	260
14	294	337	360	350	293	348	298	306	280	229	280	259
15	294	340	360	410	284	353	298	330	294	241	285	267
16	293	345	360	370	267	358	293	320	284	239	344	263
17	298	351	350	337	302	353	293	344	289	236	318	266
18	306	361	330	326	326	360	293	335	296	233	299	260
19	317	352	390	317	336	362	306	328	301	235	295	267
20	309	357	410	304	353	351	300	319	286	241	283	268
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	---	[illegible]	[illegible]	---	[illegible]	---	[illegible]	---	[illegible]	[illegible]	---
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

[illegible]

06787500 CALAMUS RIVER NEAR BURWELL, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1972 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1971 to September 1977.
WATER TEMPERATURES: October 1971 to September 1976.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 221 micromhos May 17, 1972; minimum daily, 105 micromhos Aug. 13, 1976.
WATER TEMPERATURES: Maximum, 32.0°C June 30, 1973; minimum, 0.0°C on many days during winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	COLOR (PLAT-INUM COBALT UNITS) (00080)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
OCT									
22...	1435	323	136	7.1	8.0	5	50	0	16
NOV									
13...	1100	333	135	7.2	5.0	15	53	0	17
DEC									
04...	1015	384	136	7.2	3.0	10	59	0	19
JAN									
16...	1600	360	123	7.3	3.5	20	48	0	16
FEB									
26...	0935	382	162	7.1	2.5	30	62	0	20
MAR									
17...	1005	362	143	7.3	5.0	20	54	0	17
APR									
08...	1055	512	157	7.2	10.0	40	68	0	19
MAY									
20...	1010	328	144	7.1	16.5	20	56	0	18
JUN									
11...	0810	287	146	7.3	19.5	10	53	0	17
JUL									
31...	1030	252	147	7.2	22.5	10	53	0	17
AUG									
13...	1035	286	149	7.5	22.5	10	53	0	17
SEP									
03...	1100	272	138	7.6	21.5	5	53	0	17

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
OCT									
22...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
NOV									
13...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	--	[illegible]
DEC									
04...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
JAN									
16...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
FEB									
26...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAR									
17...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
APR									
08...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAY									
20...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
JUN									
11...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
JUL									
31...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
AUG									
13...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
SEP									
03...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

06787500 CALAMUS RIVER NEAR BURWELL, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
OCT									
22...	123	.17	107	.65	.150	.120	20	30	5
NOV									
13...	129	.18	116	.92	.200	.160	20	30	3
DEC									
04...	131	.18	136	.60	.170	.150	6	30	7
JAN									
16...	122	.17	119	.70	--	.110	10	30	2
FEB									
26...	136	.19	100	.70	--	.130	30	60	3
MAR									
17...	115	.16	112	.51	--	.220	20	70	3
APR									
08...	123	.17	170	.25	--	.120	40	90	5
MAY									
20...	124	.17	110	.01	--	.130	10	80	<3
JUN									
11...	124	.17	96.1	.30	--	.020	40	40	<3
JUL									
31...	143	.19	97.3	.36	--	.150	80	90	3
AUG									
13...	120	.16	92.7	.32	--	.100	80	80	2
SEP									
03...	127	.17	93.3	.00	.100	.110	40	30	10

06788500 NORTH LOUP RIVER AT ORD, NE

LOCATION.--Lat 41°36'27", long 98°55'17", in SW1/4NW1/4 sec.22, T.19 N., R.14 W., Valley County, Hydrologic Unit 10210007, on right bank 150 ft (46 m) downstream from bridge on State Highway 70 at Ord.

DRAINAGE AREA.--3,750 mi² (9,710 km²), approximately, of which about 700 mi² (1,810 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--November 1936 to September 1938 (published as "near Ord"), June 1952 to current year.

REVISED RECORDS.--WSP 1730: 1957(M). WDR NE-74: Drainage area. WDR NE-75: 1974.

GAGE.--Water-stage recorder. Datum of gage is 2,012.14 ft (613.300 m) National Geodetic Vertical Datum of 1929. Nov. 25, 1936, to Sept. 30, 1938, nonrecording gage at site 2 mi (3 km) downstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. Diversions above station for irrigation. Flow includes return water from North Loup irrigation project.

AVERAGE DISCHARGE.--29 years (1937-38, 1952-80), 866 ft³/s (24.53 m³/s), 627,400 acre-ft/yr (0.774 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,100 ft³/s (286 m³/s) June 7, 1962, gage height, 5.52 ft (1.682 m); maximum gage height, 5.56 ft (1.695 m) Feb. 9, 1966, backwater from ice; minimum daily discharge, 100 ft³/s (2.83 m³/s) Jan. 3, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,840 ft³/s (52.1 m³/s) Apr. 7, gage height, 3.41 ft (1.039 m); maximum gage height, 4.39 ft (1.338 m) Feb. 23, backwater from ice; minimum daily discharge, 150 ft³/s (4.25 m³/s) Jan. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	827	1550	540	940	800	600	1290	872	1010	464	334	719
2	829	1430	800	920	880	520	1300	867	968	380	309	657
3	794	1330	1000	840	960	800	1490	845	946	382	297	660
4	786	1290	1200	780	1000	1100	1540	833	946	388	341	661
5	745	1320	1330	840	1020	980	1610	824	880	330	360	658
6	754	1340	1440	840	1060	900	1740	734	830	325	387	653
7	821	1290	1340	500	1000	1000	1780	731	840	275	321	648
8	833	1240	1270	200	980	1120	1610	764	810	336	316	659
9	829	1220	1220	150	920	1170	1440	749	753	321	342	665
10	843	1220	1220	200	940	1200	1300	753	753	299	415	661
11	836	1200	1160	300	960	1180	1270	763	749	309	581	673
12	831	1150	900	450	920	1210	1180	782	730	323	639	693
13	823	1120	940	640	960	1160	1060	843	705	323	559	697
14	813	1110	980	960	940	1170	935	885	694	325	495	716
15	842	1050	1040	1400	880	1190	902	1040	794	317	530	718
16	856	1050	740	1450	840	1220	924	1010	844	321	731	721
17	818	1060	800	1450	800	1200	924	1060	843	331	741	753
18	859	1120	940	1350	840	1160	902	1040	836	336	724	761
19	865	1160	1100	1200	960	1190	902	1010	771	335	748	765
20	851	1170	1250	1140	1140	1130	913	948	758	342	719	791
21	826	1100	1350	960	1400	1130	935	917	754	353	675	812
22	831	700	1350	920	1500	1100	924	874	804	373	649	798
23	883	760	1260	880	1500	1080	891	762	804	393	657	812
24	922	840	1070	840	1450	1090	870	780	786	395	602	808
25	905	1000	1080	760	1300	1100	830	790	758	408	547	802
26	880	1100	1060	560	1200	1080	810	820	744	429	592	802
27	860	1140	1020	400	1120	1130	850	830	648	458	812	817
28	840	940	1010	440	1070	1250	850	800	548	465	774	836
29	830	640	994	500	979	1390	845	717	543	367	741	868
30	1020	500	1010	600	---	1270	830	780	532	354	699	874
31	1340	---	940	700	---	1260	---	979	---	381	765	---
TOTAL	26592	33140	33354	24110	30319	34080	33647	26402	23381	11106	17402	22158
MEAN	858	1105	1076	778	1045	1099	1122	852	779	358	561	739
MAX	1340	1550	1440	1450	1500	1390	1780	1060	1010	465	812	874
MIN	745	500	540	150	800	520	810	717	532	275	297	648
AC-FT	52750	65730	66160	47820	60140	67600	66740	52370	46380	22030	34520	43950

CAL YR 1979 TOTAL 346774 MEAN 950 MAX 2100 MIN 418 AC-FT 687800
WTR YR 1980 TOTAL 315691 MEAN 863 MAX 1780 MIN 150 AC-FT 626200

06790500 NORTH LOUP RIVER NEAR ST. PAUL, NE

LOCATION (REVISED).--Lat 41°15'48", long 98°26'56", in NW1/4NW1/4NE1/4 sec.22, T.15 N., R.10 W., Howard County, Hydrologic Unit 10210007, on right bank 310 ft (94 m) downstream from bridge on U.S. Highway 281, 3 mi (5 km) north of St. Paul, and 4 mi (6 km) upstream from confluence with Middle Loup River.

DRAINAGE AREA.--4,290 mi² (11,100 km²), approximately, of which about 1,240 mi² (3,210 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1894 to September 1915, August 1928 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 976: 1942. WSP 1390: 1896. WDR NE-74: Drainage area. WDR NE-75: 1974.

GAGE.--Water-stage recorder. Datum of gage is 1,759.29 ft (536.232 m), adjusted, National Geodetic Vertical Datum of 1929. See WSP 1918 for history of changes prior to Oct. 1, 1954.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by diversions and ground-water withdrawals for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--73 years, 968 ft³/s (27.41 m³/s), 701,300 acre-ft/yr (0.865 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 90,000 ft³/s (2,550 m³/s), estimated, June 6, 1896, gage height, 14.9 ft (4.54 m), from floodmark, datum then in use; minimum daily since 1931, 85 ft³/s (2.41 m³/s) Aug. 8, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,310 ft³/s (65.4 m³/s) Apr. 8, gage height, 4.63 ft (1.411 m); maximum gage height, 8.02 ft (2.444 m) Dec. 21, ice jam; minimum daily discharge, 120 ft³/s (3.40 m³/s) Jan. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	819	1850	560	1250	920	800	1360	815	1470	354	221	623
2	920	1550	860	1200	1000	700	1330	865	1500	310	220	611
3	903	1520	1100	1140	1060	800	1620	847	1270	273	209	561
4	877	1430	1400	1130	1140	1300	1410	812	1120	238	185	559
5	861	1470	1550	1140	1200	1250	1700	793	1100	234	197	572
6	831	1430	1600	1100	1250	1250	1940	770	910	217	180	577
7	789	1230	1580	600	1200	1400	2070	681	796	204	188	584
8	824	1170	1600	280	1100	1500	2070	678	757	183	183	591
9	831	1180	1510	120	1000	1700	1750	701	753	175	175	592
10	829	1200	1430	170	1060	1650	1450	694	724	196	179	566
11	860	1220	1400	280	1060	1570	1490	699	701	185	260	560
12	817	1220	1100	450	1000	1350	1310	753	686	177	316	581
13	827	1220	1140	700	1060	1360	1140	788	701	186	496	623
14	848	1180	1200	1100	1060	1420	1080	831	693	187	424	646
15	869	1180	1250	1600	1000	1420	1030	886	707	215	419	665
16	844	1200	800	1650	940	1510	995	1110	804	195	690	658
17	844	1260	940	1650	900	1450	978	1010	886	191	806	647
18	900	1260	1080	1600	980	1340	916	1120	915	195	805	645
19	970	1270	1250	1500	1160	1280	914	1050	895	203	764	649
20	1030	1330	1400	1400	1300	1250	896	933	834	215	774	666
21	1000	1250	1500	1080	1500	1200	888	757	778	220	712	682
22	1150	980	1550	1080	1650	1140	915	733	788	220	610	644
23	1100	820	1600	1020	1650	1130	958	706	749	224	568	611
24	1070	840	1550	960	1600	1100	939	687	700	238	558	590
25	1050	1020	1440	880	1500	1060	936	681	701	260	505	610
26	1080	1180	1520	780	1400	1140	885	665	662	305	466	619
27	1100	1250	1410	540	1300	1180	905	685	574	300	452	643
28	1020	1040	1350	430	1250	1300	956	673	494	310	644	672
29	1030	740	1320	420	1200	1630	886	678	412	319	606	708
30	1410	520	1300	600	---	1260	846	691	361	267	647	734
31	2180	---	1200	800	---	1160	---	797	---	223	592	---
TOTAL	30483	35930	40490	28650	34440	39600	36563	24589	24441	7219	14051	18689
MEAN	983	1198	1306	924	1188	1277	1219	793	815	233	453	623
MAX	2180	1850	1600	1650	1650	1700	2070	1120	1500	354	806	734
MIN	789	520	560	120	900	700	846	665	361	175	175	559
AC-FT	60460	71270	80310	56830	68310	78550	72520	48770	48480	14320	27870	37070

CAL YR 1979 TOTAL 389498 MEAN 1067 MAX 3380 MIN 373 AC-FT 772600
WTR YR 1980 TOTAL 335145 MEAN 916 MAX 2180 MIN 120 AC-FT 664800

06790500 NORTH LOUP RIVER NEAR ST. PAUL, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1946-53, 1974 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1974 to September 1978.
WATER TEMPERATURES: July 1974 to September 1978.
SUSPENDED SEDIMENT DISCHARGE: April 1946 to June 1953.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 426 micromhos Jan. 18, 1976; minimum daily, 138 micromhos Oct. 21, 1977.
WATER TEMPERATURES: Maximum, 34.0°C July 17, 1978; minimum, 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily, 17,400 mg/L Apr. 27, 1951; minimum daily, not determined.
SEDIMENT LOADS: Maximum daily, 463,000 tons (421,000 tonnes) June 22, 1947; minimum daily, 20 tons (18 tonnes) Aug. 3, 1946, Feb. 22, 1953.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)
NOV							
01...	1550	1560	224	7.7	5.0	35	12.1
26...	1130	1220	208	7.6	.5	25	13.7
DEC							
10...	1040	1380	204	7.6	2.0	25	13.7
JAN							
04...	1120	1080	233	7.5	.5	15	13.9
FEB							
11...	1040	1070	199	7.2	.5	7	13.7
MAR							
24...	1110	1170	213	7.7	3.5	25	13.3
APR							
14...	1110	1160	236	7.9	10.0	25	11.4
MAY							
05...	1050	787	212	8.1	19.5	15	9.2
JUN							
18...	1050	869	184	8.6	24.0	35	10.1
JUL							
29...	1120	336	232	8.3	27.0	25	8.4
AUG							
07...	1000	186	275	8.2	26.0	15	8.4
18...	1100	744	220	8.4	25.0	30	9.0
SEP							
08...	1030	583	214	8.1	24.0	20	9.2

DATE	TIME	COLOR (PLAT-INUM COBALT UNITS) (00080)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
FEB											
11...	1040	10	88	0	28	4.4	7.5	.3	6.0	96	8.4
AUG											
07...	1000	5	120	0	38	6.2	9.0	.4	8.4	120	13

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
FEB											
11...	.6	.2	55	172	.23	497	.86	.020	30	30	3
AUG											
07...	1.8	.4	57	206	.28	103	.00	.060	60	10	3

06791500 CEDAR RIVER NEAR SPALDING, NE

LOCATION.--Lat 41°42'41", long 98°26'48", in NE1/4NE1/4NE1/4 sec.15, T.20 N., R.10 W., Greeley County, Hydrologic Unit 10210010, on left bank 15 ft (5 m) downstream from bridge on county road, 0.4 mi (0.6 km) upstream from small tributary, and 4.7 mi (7.6 km) northwest of Spalding.

DRAINAGE AREA.--762 sq mi, approximately, of which about 50 mi² (130 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1944 to September 1953, October 1957 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WDR NE-73: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,896.24 ft (577.974 m) National Geodetic Vertical Datum of 1929. Prior to Jan. 4, 1961, at two sites 6.5 mi (10.5 km) upstream at different datum.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--32 years, 154 ft³/s (4.361 m³/s), 111,600 acre-ft/yr (0.138 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,000 ft³/s (113 m³/s) June 23, 1947, gage height, 7.50 ft (2.286 m), site and datum then in use, from rating curve extended above 640 ft³/s (18.1 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 30 ft³/s (0.85 m³/s) Jan. 30, 1946.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 687 ft³/s (19.5 m³/s) Apr. 6 at 2100, gage height, 4.82 ft (1.469 m), no other peak above base of 300 ft³/s (8.50 m³/s); minimum daily, 86 ft³/s (2.44 m³/s) July 16, 18, 19, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	126	208	160	167	135	160	221	136	136	108	94	109
2	125	187	170	161	140	180	230	133	129	108	94	118
3	127	170	180	150	150	200	321	130	133	107	91	111
4	127	158	190	160	155	190	324	135	133	108	92	106
5	132	172	188	150	165	160	345	138	132	108	94	105
6	133	172	181	150	160	170	555	139	127	102	94	107
7	135	170	181	140	155	180	620	135	134	96	92	104
8	137	165	175	125	160	191	515	134	128	92	90	103
9	135	162	178	120	170	167	355	137	123	88	90	102
10	134	156	194	150	165	162	321	136	121	88	94	100
11	137	157	188	160	160	163	248	135	119	88	102	101
12	139	161	165	155	165	167	172	131	116	89	112	104
13	138	159	170	200	160	175	177	137	120	89	105	106
14	134	158	170	190	155	179	169	142	121	87	104	104
15	138	157	175	180	150	181	165	156	126	87	102	106
16	141	155	120	175	145	182	163	172	123	86	127	103
17	141	155	125	169	130	176	156	189	124	87	140	102
18	141	154	150	168	180	177	156	194	133	86	136	103
19	148	155	180	167	215	175	152	191	124	86	123	105
20	155	164	200	161	250	170	150	189	120	87	115	110
21	148	180	215	158	189	157	147	177	125	88	108	123
22	144	170	189	156	172	153	144	163	130	89	104	110
23	152	150	184	157	170	148	142	152	135	88	103	108
24	146	180	174	160	182	146	141	150	131	86	102	108
25	144	190	168	160	185	145	136	148	130	95	101	110
26	144	179	168	150	183	148	135	148	125	106	104	110
27	144	163	169	145	188	153	141	204	115	103	103	109
28	144	145	166	145	194	174	139	127	108	101	106	110
29	153	135	175	140	190	218	139	120	106	99	105	111
30	178	150	175	135	---	231	138	127	108	95	105	113
31	223	---	171	120	---	202	---	135	---	92	105	---
TOTAL	4443	4937	5394	4824	4918	5380	6917	4640	3735	2919	3237	3221
MEAN	143	165	174	156	170	174	231	150	125	94.2	104	107
MAX	223	208	215	200	250	231	620	204	136	108	140	123
MIN	125	135	120	120	130	145	135	120	106	86	90	100
AC-FT	8810	9790	10700	9570	9750	10670	13720	9200	7410	5790	6420	6390

CAL YR 1979 TOTAL 60055 MEAN 165 MAX 359 MIN 105 AC-FT 119100
WTR YR 1980 TOTAL 54565 MEAN 149 MAX 620 MIN 86 AC-FT 108200

06792000 CEDAR RIVER NEAR FULLERTON, NE

LOCATION (REVISED).--Lat 41°23'45", long 98°00'15", in SE1/4SE1/4 sec.33, T.17 N., R.6 W., Nance County, Hydrologic Unit 10210010, on left bank upstream from highway bridge, 3 mi (5 km) northwest of Fullerton and 7.2 mi (11.6 km), upstream from mouth.

DRAINAGE AREA.--1,220 mi^2 (3,160 km^2), approximately, of which about 480 mi^2 (1,240 km^2) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1931 to June 1932, October 1940 to current year.

REVISED RECORDS.--WSP 1086: Drainage area. WSP 1390: 1932, 1941, 1943. WSP 1710: 1951(P), 1952(M), 1953, 1955(M).

GAGE.--Water-stage recorder. Datum of gage is 1,638.39 ft (499.381 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 5, 1942, nonrecording gage, Nov. 5, 1942, to June 23, 1947, water-stage recorder, June 24, 1947, to Apr. 6, 1948, nonrecording gage, Apr. 7, 1948 to Apr. 15, 1971, water-stage recorder, all on downstream side of bridge pier at datum 2.00 ft (0.610 m) higher, and Apr. 16, 1971 to Aug. 26, 1980 on downstream side of bridge pier at present datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by power developments, ground-water and surface-water withdrawals for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--40 years (1940-80), 240 ft^3/s (6.797 m^3/s), 173,900 acre-ft/yr (0.214 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 64,700 ft^3/s (1,830 m^3/s) Aug. 13, 1966, gage height, 16.90 ft (5.151 m), present datum, from high point on surge, from rating curve extended above 6,600 ft^3/s (187 m^3/s) on basis of flow-over-highway-embankment and contracted-opening measurement of peak flow; minimum daily, 30 ft^3/s (0.85 m^3/s) July 18, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,530 ft^3/s (43.3 m^3/s) Aug. 16 at 0800, gage height, 4.47 ft (1.362 m), no other peak above base of 1,500 ft^3/s (42.5 m^3/s); minimum daily, 31 ft^3/s (0.88 m^3/s) July 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	153	278	230	235	190	220	328	198	212	86	65	168
2	141	273	260	238	230	240	332	205	217	90	55	122
3	153	261	300	218	230	260	368	196	231	66	33	158
4	152	247	340	226	240	250	497	193	206	64	59	181
5	144	240	310	246	260	180	530	199	207	48	45	147
6	166	247	300	230	245	200	545	190	204	38	39	159
7	159	241	263	200	240	197	795	192	203	42	39	164
8	157	235	250	190	245	201	700	184	191	36	40	165
9	149	230	270	180	220	235	580	183	203	35	43	148
10	158	222	281	250	260	286	455	188	190	32	48	165
11	160	226	270	240	240	267	425	194	180	35	104	149
12	176	233	230	240	250	298	300	195	173	36	111	158
13	177	229	235	320	250	257	185	197	173	34	111	145
14	169	227	229	280	250	281	202	195	181	31	135	136
15	163	203	237	270	230	244	215	204	208	50	133	151
16	154	208	190	260	220	291	225	237	201	42	765	151
17	178	218	210	250	210	283	223	271	194	39	420	127
18	179	216	250	260	270	308	226	275	193	60	252	131
19	180	222	370	250	300	316	225	275	191	90	222	211
20	182	225	450	250	320	296	222	265	196	86	182	233
21	185	257	408	250	600	254	219	255	191	80	165	211
22	191	240	395	260	620	249	202	247	220	58	151	222
23	187	210	350	250	390	246	198	227	197	54	151	200
24	184	217	300	270	360	228	195	195	182	34	132	182
25	188	258	312	230	280	233	196	198	130	55	145	158
26	185	250	287	220	330	243	199	202	121	72	124	182
27	174	240	261	170	300	248	198	221	122	102	138	155
28	170	210	259	210	300	265	202	243	110	107	145	188
29	169	170	283	210	290	319	197	262	102	102	132	188
30	198	200	267	205	---	355	196	199	97	75	141	171
31	276	---	256	180	---	313	---	193	---	78	161	---
TOTAL	5357	6933	8853	7288	8370	8063	9580	6678	5426	1857	4486	5026
MEAN	173	231	286	235	289	260	319	215	181	59.9	145	168
MAX	276	278	450	320	620	355	795	275	231	107	765	233
MIN	141	170	190	170	190	180	185	183	97	31	33	122
AC-FT	10630	13750	17560	14460	16600	15990	19000	13250	10760	3680	8900	9970

CAL YR 1979 TOTAL 92310 MEAN 253 MAX 1670 MIN 94 AC-FT 183100
WTR YR 1980 TOTAL 77917 MEAN 213 MAX 795 MIN 31 AC-FT 154500

06792000 CEDAR RIVER NEAR FULLERTON, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958-59, 1974 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1974 to current year.
WATER TEMPERATURES: July 1974 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 550 micromhos Jan. 1, 1978; minimum daily, 155 micromhos Aug. 16, 1980.
WATER TEMPERATURES: Maximum, 36.0°C July 7, 1975; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 324 micromhos Dec. 13; minimum daily, 155 micromhos Aug. 16.
WATER TEMPERATURES: Maximum, 35.0°C July 30, Aug. 5, 6, 9, 10; minimum, 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPERATURE, WATER (DEG C) (00010)	COLOR (PLATINUM COBALT UNITS) (00080)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)
OCT 25...	1315	186	255	8.1	10.0	10	110	0	34
NOV 14...	1015	230	318	7.7	.5	20	130	0	40
DEC 05...	0920	312	248	7.4	1.0	15	100	0	33
JAN 16...	1030	258	261	7.3	.5	5	100	0	33
FEB 06...	1530	244	268	7.9	.0	15	120	0	38
MAR 20...	1245	268	289	7.7	9.0	15	130	0	40
APR 09...	1635	622	255	8.0	11.0	80	93	0	29
MAY 21...	0945	230	255	7.9	17.5	10	130	0	38
JUN 11...	0930	182	308	8.6	21.5	15	120	0	37
JUL 23...	1210	70	242	8.5	26.5	80	110	0	34
AUG 13...	0830	127	259	8.1	22.5	25	100	0	32
SEP 24...	0915	129	245	8.0	14.0	15	100	0	31

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)
OCT 25...	5.9	7.5	.3	7.3	120	14	2.0	.2	41
NOV 14...	6.5	10	.4	8.1	130	17	3.1	.2	43
DEC 05...	5.2	9.2	.4	7.1	120	5.8	1.4	.2	40
JAN 16...	5.1	7.9	.3	6.4	110	5.2	3.2	.2	40
FEB 06...	6.2	9.8	.4	6.5	130	8.6	1.8	.2	44
MAR 20...	6.7	11	.4	7.4	140	10	4.1	.2	39
APR 09...	5.0	14	.6	8.4	110	13	4.8	.2	27
MAY 21...	7.3	10	.4	6.7	130	8.1	1.5	.3	35
JUN 11...	6.3	8.0	.3	7.2	120	13	2.2	.3	37
JUL 23...	5.6	7.4	.3	7.0	120	7.2	2.3	.3	38
AUG 13...	5.5	8.7	.4	8.7	120	7.4	1.6	.4	36
SEP 24...	5.4	8.0	.3	6.7	120	5.6	1.6	.3	36

06792000 CEDAR RIVER NEAR FULLERTON, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
OCT 25...	187	.25	93.9	.56	--	.160	30	50	10
NOV 14...	208	.28	129	.52	.260	.160	30	30	10
DEC 05...	176	.24	148	.46	.310	.140	30	50	40
JAN 16...	170	.23	118	.62	.230	.150	50	110	20
FEB 06...	196	.27	129	.67	--	.160	20	70	10
MAR 20...	204	.28	148	.41	--	.350	60	10	10
APR 09...	169	.23	284	.32	--	.160	80	130	8
MAY 21...	185	.25	115	.06	--	.170	20	60	10
JUN 11...	184	.25	90.4	.26	--	.170	30	30	5
JUL 23...	174	.24	33.2	.09	.300	.170	30	10	5
AUG 13...	173	.24	59.3	.00	--	.180	100	160	20
SEP 24...	167	.23	58.2	.00	.310	.110	70	40	10

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	268	247	246	291	268	292	310	292	314	255	294	247
2	273	268	245	280	265	294	291	293	293	255	286	280
3	276	226	242	286	265	292	292	296	292	261	297	250
4	272	207	248	295	259	270	169	294	292	257	288	253
5	271	189	249	274	260	268	167	298	320	262	289	255
6	266	252	260	273	268	268	159	296	299	255	295	257
7	267	218	290	282	239	264	175	294	297	254	302	275
8	266	181	283	270	231	266	208	291	298	258	293	258
9	269	179	269	268	204	269	289	292	299	252	284	267
10	271	179	266	269	289	264	289	293	297	308	282	255
11	269	182	271	272	281	282	293	295	295	288	243	256
12	265	239	323	264	237	285	295	292	293	301	247	258
13	262	262	324	284	286	282	295	293	320	289	234	259
14	267	263	276	266	278	269	295	298	300	302	230	260
15	269	263	279	263	269	263	295	295	295	237	242	259
16	268	261	278	269	279	278	294	284	308	265	155	267
17	268	261	280	268	280	278	297	275	297	317	229	257
18	265	261	281	268	280	279	292	277	302	274	251	257
19	264	262	279	269	273	281	293	279	299	279	249	261
20	266	262	280	271	241	275	293	282	297	288	237	240
21	267	265	262	266	200	279	295	283	299	311	255	252
22	268	261	254	264	253	275	288	283	305	273	273	249
23	269	261	255	268	250	283	292	284	289	261	257	258
24	268	261	259	270	247	290	293	287	290	302	283	253
25	262	262	274	269	252	284	292	289	311	262	273	255
26	266	280	272	268	269	280	289	288	308	251	277	260
27	245	262	273	268	250	279	293	294	298	252	287	268
28	247	243	278	269	299	289	294	293	295	251	274	253
29	244	241	275	304	299	280	288	299	292	249	277	259
30	246	239	276	280	---	292	289	304	295	252	273	261
31	242	---	272	282	---	292	---	308	---	259	248	---

06792000 CEDAR RIVER NEAR FULLERTON, NE--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.0	5.0	1.0	1.0	.0	.0	5.0	16.0	22.0	29.0	23.0	22.0
2	15.0	3.0	1.0	.0	.0	1.0	5.0	16.0	18.0	26.0	33.0	27.0
3	14.0	11.0	1.0	.0	1.0	2.0	6.0	17.0	18.0	25.0	25.0	33.0
4	10.0	9.0	1.0	.0	1.0	2.0	10.0	17.0	19.0	33.0	30.0	30.0
5	10.0	6.0	1.0	1.0	1.0	1.0	14.0	17.0	17.0	32.0	35.0	30.0
6	10.0	6.0	.0	1.0	1.0	1.0	14.0	13.5	18.0	28.0	35.0	24.0
7	20.0	5.0	2.0	1.0	.0	.0	12.0	11.0	20.0	30.0	33.0	29.0
8	17.0	1.0	.0	1.0	1.0	1.0	11.0	12.5	20.0	31.0	33.0	30.0
9	13.0	1.0	1.0	.0	1.0	1.0	12.0	12.5	19.0	25.0	35.0	23.0
10	11.0	.0	2.0	1.0	.0	1.0	13.0	12.0	20.0	30.0	35.0	21.0
11	12.0	1.0	.0	.0	.0	1.0	13.0	13.5	23.0	27.0	30.0	27.0
12	11.0	1.0	.0	.0	.0	2.0	12.0	13.0	25.0	25.0	30.0	27.0
13	9.0	2.0	1.0	.0	1.0	3.0	14.0	12.5	20.0	28.0	29.0	25.0
14	10.0	3.0	1.0	.0	.0	8.0	14.0	13.5	20.0	25.0	25.0	25.0
15	10.0	3.0	1.0	.0	.0	6.0	15.0	15.5	20.0	28.0	21.0	25.0
16	11.0	5.0	.0	.0	1.0	7.0	14.0	13.0	22.0	32.0	22.0	23.0
17	10.0	5.0	.0	1.0	1.0	9.0	15.0	13.0	21.0	30.0	28.0	23.0
18	9.0	4.0	1.0	1.0	1.0	11.0	15.0	14.0	20.0	30.0	23.0	22.0
19	8.0	3.0	2.0	1.0	2.0	12.0	16.0	15.0	24.0	26.0	21.0	25.0
20	10.0	3.0	2.0	.0	1.0	11.0	13.0	16.5	25.0	25.0	24.0	22.0
21	12.0	4.0	.0	.0	2.0	10.0	12.0	16.5	22.0	30.0	20.0	25.0
22	11.0	3.0	.0	1.0	1.0	9.0	12.0	17.0	24.0	33.0	26.0	22.0
23	11.0	3.0	.0	.0	1.0	5.0	12.0	17.0	25.0	34.0	29.0	18.0
24	12.0	8.0	.0	2.0	2.0	7.0	13.0	17.5	25.0	25.0	32.0	20.0
25	12.0	3.0	1.0	1.0	2.0	6.0	14.0	20.0	24.0	28.0	30.0	18.0
26	13.0	3.0	1.0	.0	1.0	5.0	15.0	22.0	26.0	26.0	22.0	17.0
27	10.0	2.0	.0	.0	1.0	6.0	14.0	22.5	26.0	34.0	23.0	21.0
28	10.0	2.0	2.0	.0	1.0	5.0	15.0	22.0	27.0	25.0	28.0	21.0
29	12.0	2.0	1.0	.0	1.0	4.0	14.0	23.0	25.0	34.0	31.0	20.0
30	10.0	2.0	1.0	.0	---	6.0	13.0	19.0	27.0	35.0	23.0	21.0
31	6.0	---	2.0	.0	---	7.0	---	20.5	---	23.0	29.0	---

06792499 LOUP RIVER POWER CANAL AT DIVERSION NEAR GENOA, NE
(National stream-quality accounting network station)

LOCATION.--Lat 41°23'31", long 97°49'20", in NE1/4NW1/4 sec.6, T.16 N., R.4 W., Nance County, Hydrologic Unit 10210009, at diversion structure, 2 mi (3 km) upstream from gaging station and 5.5 mi (8.8 km) southwest of Genoa.

PERIOD OF RECORD.--Water year 1973 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1972 to current year.
WATER TEMPERATURES: October 1972 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 479 micromhos June 1, 1977; minimum daily, 178 micromhos Aug. 16, 1980.
WATER TEMPERATURES: Maximum, 36.5°C July 11, 13, 14, 1980; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 413 micromhos Jan. 10; minimum daily, 178 micromhos Aug. 16.
WATER TEMPERATURES: Maximum, 36.5°C July 11, 13, 14; 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 25...	1400	2000	260	8.3	11.0	30	23	10.3	3.0	K30	176
NOV 14...	1145	2680	261	8.0	3.0	40	38	15.0	5.6	K78	K350
DEC 05...	1100	1600	260	7.7	.5	60	50	13.6	--	83	256
JAN 16...	1140	857	289	7.9	.5	--	21	13.4	--	K90	132
FEB 06...	1410	2180	289	8.1	.0	10	11	12.0	--	330	120
MAR 19...	1220	2800	261	8.0	7.0	--	55	10.4	8.4	--	K80
APR 08...	1615	3080	285	8.2	11.5	80	95	10.6	--	1800	700
MAY 21...	1100	2080	270	8.2	19.0	--	15	9.8	--	K37	K64
JUN 11...	1030	1920	271	8.7	33.0	35	26	7.2	--	K110	K220
JUL 23...	1430	166	255	8.8	30.5	--	2.5	8.4	--	450	K100
AUG 13...	1100	464	293	8.4	25.0	50	40	8.9	--	1200	740
SEP 24...	1130	1110	260	8.2	16.0	25	25	10.0	--	K90	250

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
OCT 25...	100	0	33	5.3	7.6	.3	7.0	110	11	2.0
NOV 14...	100	0	33	5.4	9.7	.4	7.3	120	12	3.3
DEC 05...	100	0	32	5.2	9.3	.4	6.7	120	8.2	2.0
JAN 16...	120	0	37	5.7	9.3	.4	7.0	130	8.9	3.2
FEB 06...	130	0	41	6.5	9.6	.4	7.3	140	11	2.3
MAR 19...	110	1	35	5.7	8.8	.4	7.2	110	10	2.3
APR 08...	110	0	34	5.7	11	.5	9.0	110	11	6.1
MAY 21...	110	0	35	5.7	8.8	.4	7.5	120	8.4	1.9
JUN 11...	110	0	34	5.5	8.6	.4	7.8	120	11	2.9
JUL 23...	130	0	41	7.3	11	.4	9.5	150	10	2.7
AUG 13...	100	0	32	5.7	11	.5	9.4	120	10	3.2
SEP 24...	100	0	31	5.7	8.0	.3	7.0	120	6.4	2.1

06792499 LOUP RIVER POWER CANAL AT DIVERSION NEAR GENOA, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
OCT 25...	.3	49	194	184	.26	1050	.63	.63	.07	.01
NOV 14...	.3	50	197	198	.27	1430	--	.96	--	.29
DEC 05...	.2	45	182	184	.25	786	.84	.74	.07	.07
JAN 16...	.3	56	219	210	.30	507	.94	.90	.13	.00
FEB 06...	.2	57	215	223	.29	1270	1.0	.82	.06	.01
MAR 19...	.3	50	197	189	.27	1490	--	.83	.20	.00
APR 08...	.3	42	217	187	.30	1810	.52	.47	.41	.13
MAY 21...	.3	47	179	188	.24	1010	.19	.19	.12	.09
JUN 11...	.4	49	203	191	.28	1050	.01	.01	.04	.00
JUL 23...	.4	50	232	222	.32	104	.00	.00	.00	.00
AUG 13...	.4	43	193	187	.26	242	.00	.00	.00	.00
SEP 24...	.3	48	177	181	.24	530	.01	.01	.00	.00

DATE	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N) (00624)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
OCT 25...	1.9	.43	2.0	1.6	.44	2.6	1.1	.220	.130	6.4
NOV 14...	1.0	.69	1.2	.22	.98	2.0	1.9	.380	.230	--
DEC 05...	1.1	.42	1.2	.71	.49	2.0	1.2	.370	.160	12
JAN 16...	1.1	.88	1.2	.32	.88	2.1	1.8	.280	.220	5.1
FEB 06...	.70	.45	.76	.30	.46	1.8	1.3	.200	.160	--
MAR 19...	1.8	.72	2.0	1.3	.72	--	1.6	.320	.210	13
APR 08...	2.2	1.2	2.6	1.3	1.3	3.1	1.8	.360	.190	15
MAY 21...	.88	.51	1.0	.40	.60	1.2	.41	.270	.140	--
JUN 11...	1.2	.42	1.2	.78	.42	1.2	.43	.260	.070	12
JUL 23...	1.5	.62	1.5	.88	.62	1.5	.62	.150	.110	17
AUG 13...	1.7	.59	1.7	1.1	.59	1.7	.59	.350	.060	--
SEP 24...	1.2	.53	1.2	.67	.53	1.2	.55	.210	.090	7.2

DATE	TIME	ARSENIC SUS-PENDED TOTAL (UG/L AS AS) (01001)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA) (01006)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD) (01026)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR) (01031)
NOV 14...	1145	2	6	200	100	100	7	3	4	10	10
DEC 05...	1100	--	--	--	--	--	--	--	--	--	--
FEB 06...	1410	3	5	--	--	100	0	0	<1	10	10
MAR 19...	1220	--	--	--	--	--	--	--	--	--	--
MAY 21...	1100	2	8	200	100	100	1	0	1	0	0
JUN 11...	1030	--	--	--	--	--	--	--	--	--	--
AUG 13...	1100	0	10	200	100	100	1	--	--	0	0
SEP 24...	1130	--	--	--	--	--	--	--	--	--	--

06792499 LOUP RIVER POWER CANAL AT DIVERSION NEAR GENOA, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO) (01036)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU) (01041)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE) (01044)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)
NOV 14...	0	0	0	<3	15	11	4	2100	2100	20	9
DEC 05...	--	--	--	--	--	--	--	--	--	--	--
FEB 06...	0	0	0	<3	0	0	0	960	920	40	3
MAR 19...	--	--	--	--	--	--	--	--	--	--	--
MAY 21...	0	3	3	0	6	0	6	1400	1400	50	5
JUN 11...	--	--	--	--	--	--	--	--	--	--	--
AUG 13...	0	0	--	<3	9	0	9	1700	1600	70	9
SEP 24...	--	--	--	--	--	--	--	--	--	--	--

DATE	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB) (01050)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN) (01054)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG) (71895)	MERCURY DISSOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI) (01066)	NICKEL, DISSOLVED (UG/L AS NI) (01065)
NOV 14...	9	0	130	120	7	.1	.1	.0	26	24	2
DEC 05...	--	--	--	--	--	--	--	--	--	--	--
FEB 06...	3	0	20	10	9	.1	.1	.0	2	2	0
MAR 19...	--	--	--	--	--	--	--	--	--	--	--
MAY 21...	3	2	80	70	10	.4	.1	.3	7	7	0
JUN 11...	--	--	--	--	--	--	--	--	--	--	--
AUG 13...	4	5	200	190	9	.4	.2	.2	5	--	--
SEP 24...	--	--	--	--	--	--	--	--	--	--	--

DATE	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE) (01146)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG) (01076)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN) (01091)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED (MG/L AS C) (00689)
NOV 14...	1	0	1	0	0	0	50	50	<3	--	--
DEC 05...	--	--	--	0	--	--	--	--	--	--	--
FEB 06...	1	0	1	0	0	0	20	10	10	--	.5
MAR 19...	--	--	--	2	--	--	--	--	--	--	--
MAY 21...	1	0	1	0	0	0	40	20	20	.5	2.4
JUN 11...	--	--	--	1	--	--	--	--	--	--	--
AUG 13...	1	0	1	2	2	0	30	0	30	4.2	3.6
SEP 24...	--	--	--	0	--	--	--	--	--	--	--

06792499 LOUP RIVER POWER CANAL AT DIVERSION NEAR GENOA, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

DATE	NOV 14,79	MAR 19,80	MAY 21,80	JUN 11,80
TIME	1145	1220	1100	1030
TOTAL CELLS/ML	23000	13000	38000	200000
DIVERSITY: DIVISION	0.9	0.9	1.2	1.1
.CLASS	0.9	0.9	1.2	1.1
..ORDER	1.0	1.4	1.5	1.5
...FAMILY	1.6	2.7	2.4	2.6
....GENUS	1.6	2.9	3.0	3.5

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	--	-	--	-	--	-	--	-
...HYDRODICTYACEAE								
....PEDIASTRUM	--	-	--	-	--	-	17000	9
...MICRACTINIACEAE								
....GOLENKINIA	--	-	--	-	1400	4	*	0
....MICRACTINIUM	--	-	--	-	12000#	31	5700	3
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	250	2	4800	13	16000	8
....CHLORELLA	--	-	--	-	--	-	2900	1
....CHODATELLA	--	-	--	-	480	1	--	-
....DICTYOSPHAERIUM	--	-	--	-	1400	4	18000	9
....OOCYSTIS	--	-	--	-	--	-	1900	1
....SELENASTRUM	--	-	--	-	720	2	3800	2
....TETRAEDRON	--	-	--	-	720	2	*	0
....TREUBARIA	--	-	--	-	240	1	--	-
....WESTELLA	--	-	--	-	--	-	--	-
...SCENEDESMACEAE								
....ACTINASTRUM	--	-	--	-	--	-	7700	4
....SCENEDESMUS	1300	6	500	4	1900	5	52000#	26
....TETRASTRUM	--	-	--	-	--	-	7700	4
..TETRASPORALES								
...COCCOMYXACEAE								
....ELAKATOTHRIX	--	-	--	-	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CARTERIA	--	-	*	0	--	-	--	-
....CHLAMYDOMONAS	*	0	120	1	480	1	5700	3
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	290	1	1100	8	8900#	23	6700	3
....MELOSIRA	--	-	--	-	--	-	1900	1
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	190	1	--	-	--	-
....COCCONEIS	220	1	250	2	--	-	--	-
...CYMBELLACEAE								
....AMPHORA	--	-	*	0	--	-	--	-
....EPITHEMIA	--	-	*	0	--	-	--	-
...DIATOMACEAE								
....OPEPHORA	--	-	1100	8	--	-	--	-
...FRAGILARIACEAE								
....FRAGILARIA	17000#	70	5500#	41	--	-	3800	2
....SYNEDRA	*	0	560	4	--	-	*	0
...GOMPHONEMATACEAE								
....GOMPHONEMA	220	1	250	2	--	-	--	-
...NAVICULACEAE								
....CALONEIS	--	-	*	0	--	-	--	-
....NAVICULA	650	3	870	7	480	1	--	-
...NITZSCHIACEAE								
....NITZSCHIA	1100	5	500	4	2400	6	16000	8
...SURIRELLACEAE								
....SURIRELLA	220	1	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOCHRYSIDACEAE								
....CHROOMONAS	--	-	--	-	--	-	--	-
...CRYPTOMONADACEAE								
....CRYPTOMONAS	*	0	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....AGMENELLUM	--	-	--	-	--	-	--	-
....ANACYSTIS	--	-	--	-	1900	5	27000	14
....COCCOCHLORIS	--	-	--	-	240	1	--	-
..HORMOGONALES								
...NOSTOCACEAE								
....ANABAENA	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE								
....OSCILLATORIA	2800	12	1900	15	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06792499 LOUP RIVER POWER CANAL AT DIVERSION NEAR GENOA, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

DATE	JUL 23,80	AUG 13,80	SEP 24,80
TIME	1430	1100	1130
TOTAL CELLS/ML	300000	130000	92000
DIVERSITY: DIVISION	1.2	0.9	0.9
.CLASS	1.2	0.9	0.9
..ORDER	1.8	1.2	1.3
...FAMILY	2.4	2.1	1.6
....GENUS	2.9	3.0	2.3

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...CHARACIACEAE						
....SCHROEDERIA	*	0	*	0	--	-
...HYDRODICTYACEAE						
....PEDIASTRUM	--	-	--	-	--	-
...MICRACTINIACEAE						
....GOLENKINIA	*	0	1800	1	--	-
....MICRACTINIUM	--	-	8300	7	--	-
...OOCYSTACEAE						
....ANKISTRODESMUS	5200	2	2700	2	2500	3
....CHLORELLA	*	0	--	-	--	-
....CHODATELLA	*	0	--	-	--	-
....DICTYOSPHAERIUM	10000	3	12000	10	4800	5
....OOCYSTIS	*	0	3000	2	--	-
....SELENASTRUM	2300	1	890	1	880	1
....TETRAEDRON	*	0	*	0	*	0
....TREUBARIA	*	0	--	-	--	-
....WESTELLA	*	0	--	-	--	-
...SCENEDESMACEAE						
....ACTINASTRUM	31000	10	17000	13	--	-
....SCENEDESMUS	23000	8	51000#	40	11000	12
....TETRASTRUM	*	0	1200	1	--	-
..TETRASPORALES						
...COCCOMYXACEAE						
....ELAKATOTHRIX	*	0	--	-	--	-
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CARTERIA	--	-	--	-	--	-
....CHLAMYDOMONAS	*	0	2400	2	2000	2
CHRYSOPHYTA						
.BACILLARIOPHYCEAE						
..CENTRALES						
...COSCINODISCACEAE						
....CYCLOTELLA	*	0	2100	2	13000	15
....MELOSIRA	3200	1	--	-	49000#	54
..PENNALES						
...ACHNANTHACEAE						
....ACHNANTHES	--	-	--	-	--	-
....COCCONEIS	--	-	--	-	--	-
...CYMBELLACEAE						
....AMPHORA	--	-	--	-	--	-
....EPITHEMIA	--	-	--	-	--	-
...DIATOMACEAE						
....OPEPHORA	--	-	--	-	--	-
...FRAGILARIACEAE						
....FRAGILARIA	--	-	--	-	3400	4
....SYNEDRA	--	-	--	-	--	-
...GOMPHONEMATACEAE						
....GOMPHONEMA	--	-	--	-	--	-
...NAVICULACEAE						
....CALONEIS	--	-	--	-	--	-
....NAVICULA	*	0	--	-	--	-
...NITZSCHIACEAE						
....NITZSCHIA	18000	6	6000	5	3400	4
...SURIRELLACEAE						
....SURIRELLA	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)						
.CRYPTOPHYCEAE						
..CRYPTOMONADALES						
...CRYPTOCHRYSIDACEAE						
....CHROOMONAS	--	-	*	0	--	-
...CRYPTOMONADACEAE						
....CRYPTOMONAS	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..CHROOCOCCALES						
...CHROOCOCCACEAE						
....AGMENELLUM	7700	3	3600	3	--	-
....ANACYSTIS	43000	14	11000	9	1400	2
....COCCOCHLORIS	--	-	--	-	--	-
..HORMOGONALES						
...NOSTOCACEAE						
....ANABAENA	120000#	39	2100	2	--	-
...OSCILLATORIACEAE						
....OSCILLATORIA	29000	10	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	LENGTH OF EXPOSURE (DAYS) (00022)	BIOMASS CHLOROPHYLL RATIO PERIPHYTON (UNITS) (70950)	CHLOR-A PERIPHYTON CHROMOGRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERIPHYTON CHROMOGRAPHIC FLUOROM (MG/M2) (70958)	PERIPHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PERIPHYTON BIOMASS ASH WEIGHT G/SQ M (00572)
APR							
30...	1200	20	407	1.35	.000	3.23	2.68
MAY							
21...	1100	22	4667	.270	.000	2.28	1.02
JUN							
12...	1215	22	1975	.080	.000	.945	.787
JUL							
02...	1500	20	.00	.130	.020	2.99	2.99
23...	1430	21	3275	1.09	.170	9.79	6.22
AUG							
13...	1100	21	1308	1.20	.200	6.22	4.65

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPERATURE, WATER (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)
JUL					
16...	1100	290	8.5	27.5	7.6
16...	1300	302	8.8	30.5	7.9
16...	1500	289	9.2	33.0	9.9
16...	1700	312	9.3	33.5	9.4
16...	1900	278	9.2	33.5	7.6
16...	2100	275	9.1	30.0	6.2
16...	2300	278	9.0	29.0	5.6

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPERATURE, WATER (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)
JUL					
17...	0100	281	8.9	27.0	5.6
17...	0300	280	8.9	25.5	6.2
17...	0500	283	8.8	23.5	6.2
17...	0700	277	8.8	24.0	6.9
17...	0900	275	8.8	24.5	8.0
17...	1100	278	8.9	26.0	7.8

06792499 LOUP RIVER POWER CANAL AT DIVERSION NEAR GENOA, NE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	248	247	333	265	322	224	296	290	259	305	310	263
2	255	264	337	272	321	271	296	285	268	307	316	266
3	260	258	329	279	310	266	309	290	260	302	342	263
4	249	259	291	277	295	268	319	285	260	312	348	264
5	253	282	258	284	294	293	309	275	265	327	349	263
6	250	255	242	311	280	279	295	280	260	331	357	258
7	252	268	244	310	262	261	271	280	265	341	357	264
8	251	250	244	359	259	261	273	280	267	347	355	255
9	255	253	248	400	248	262	279	280	270	352	335	253
10	258	261	248	413	248	243	280	285	268	368	336	257
11	270	252	252	398	251	239	278	285	269	354	284	258
12	258	252	271	407	254	238	289	285	278	352	283	257
13	255	255	297	408	254	245	298	280	270	358	280	250
14	259	259	291	352	255	242	300	270	278	359	265	255
15	259	254	271	317	262	255	304	270	263	332	253	254
16	258	261	331	289	256	257	303	260	268	318	178	253
17	260	260	327	254	261	259	303	250	263	332	205	252
18	252	252	342	243	262	255	303	250	261	334	263	251
19	252	276	339	248	267	257	299	260	262	319	267	253
20	258	246	332	252	257	258	299	260	252	317	284	249
21	245	244	300	249	244	259	299	260	261	329	271	247
22	258	270	249	252	230	259	295	270	253	317	277	251
23	255	252	238	265	228	258	299	270	255	329	278	247
24	258	279	238	255	219	259	299	275	269	341	281	247
25	249	281	245	254	216	260	297	280	273	327	297	245
26	254	278	249	279	214	253	293	275	269	311	283	247
27	251	253	248	290	217	256	293	270	269	288	285	252
28	253	279	249	309	214	251	293	275	280	292	285	244
29	256	299	245	329	224	253	287	270	285	294	275	245
30	228	310	245	352	---	272	287	280	289	295	265	245
31	228	---	252	354	---	271	---	280	---	299	246	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	6.0	.0	.0	.0	.0	5.0	20.5	24.0	29.0	25.5	23.5
2	19.5	7.0	.0	.0	.0	.0	5.0	21.5	26.0	24.0	31.5	26.5
3	18.0	6.5	.0	.0	.0	.0	4.5	17.0	26.0	25.5	22.0	28.5
4	14.5	8.5	.5	.0	.0	.0	10.0	21.5	24.0	25.0	29.5	26.5
5	15.5	6.0	1.5	.0	.0	.0	12.0	21.5	29.0	32.0	30.5	27.0
6	16.0	5.5	1.0	.0	.0	.0	15.5	21.0	28.0	25.0	31.5	29.5
7	13.5	6.0	2.0	.0	.0	.0	15.0	18.5	25.0	29.5	32.0	25.0
8	17.0	4.5	.5	.0	.0	.0	12.0	18.0	25.0	31.5	30.5	29.5
9	13.5	3.0	2.0	.0	.0	.0	12.0	14.5	26.0	35.0	31.5	21.0
10	14.0	.5	3.5	.5	.0	.5	14.0	16.0	28.5	28.0	33.5	21.0
11	18.0	3.5	.0	.5	.0	.5	11.5	15.5	26.0	36.5	30.5	24.0
12	13.5	4.5	.0	.5	.0	.5	11.5	13.0	24.0	25.5	29.5	26.5
13	13.0	5.0	.0	.5	.0	.5	11.5	15.5	29.0	36.5	30.0	24.5
14	13.0	5.5	.0	.5	.0	2.0	12.0	14.5	25.0	36.5	26.0	23.5
15	15.5	6.5	.0	.5	.0	9.0	14.0	18.0	23.5	25.5	21.0	24.0
16	18.0	8.0	.0	.5	.0	8.0	13.5	12.0	24.0	33.5	23.0	15.5
17	16.5	9.0	.0	.5	.0	9.0	14.5	12.0	24.5	26.5	21.5	19.0
18	15.0	9.0	.5	.5	.0	11.0	18.5	14.5	25.0	30.0	29.0	21.0
19	15.0	6.0	.5	.0	.0	10.0	19.5	19.5	21.0	32.0	30.5	23.5
20	17.0	5.0	.5	.0	.0	11.5	23.0	23.0	19.0	31.5	29.5	20.5
21	10.5	3.0	.5	.5	.0	10.5	23.0	24.0	22.0	31.5	26.5	23.0
22	8.5	.5	.0	.5	.0	9.5	23.5	20.5	22.0	31.0	26.0	21.0
23	10.5	.0	1.0	.5	.0	5.5	18.5	24.0	22.0	31.5	28.5	18.5
24	12.0	1.0	.5	.5	.0	6.5	18.0	24.0	24.0	31.0	30.5	21.0
25	10.0	1.5	.5	.5	.0	6.0	16.5	24.5	25.0	28.0	30.0	19.0
26	11.0	2.0	.5	.0	.0	3.5	15.5	26.5	28.0	29.5	23.5	18.0
27	14.5	2.0	.5	.0	.0	6.0	16.5	24.5	28.0	30.0	23.5	20.0
28	13.5	.0	.0	.0	.0	5.5	18.5	25.0	29.0	31.5	27.0	20.5
29	12.0	.0	.0	.0	.0	4.5	20.0	27.0	30.0	31.5	27.0	20.0
30	10.0	.0	.0	.0	---	6.5	15.5	24.0	23.0	26.0	26.5	15.5
31	6.5	---	.0	.0	---	9.0	---	19.5	---	21.0	24.0	---

PLATTE RIVER BASIN

06792500 LOUP RIVER POWER CANAL NEAR GENOA, NE

LOCATION.--Lat 41°25'03", long 97°47'37", in NE1/4NE1/4 sec.32, T.17 N., R.4 W., Nance County, Hydrologic Unit 10210009, at skimming weir on downstream end of settling basin on left bank, 2 mi (3 km) downstream from point of diversion and 3.5 mi (5.6 km) southwest of Genoa.

PERIOD OF RECORD.--December 1936 to current year.

GAGE.--Water-stage recorder and concrete weir. Datum of gage is 1,566.26 ft (477.396 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1956, at datum 3.0 feet higher.

REMARKS.--Records excellent. Canal diverts from Loup River in sec.6, T.16 N., R.4 W.; water is used in powerplants near Monroe and Columbus and is returned to Platte River 1.5 mi (2.4 km) downstream from Loup River. Diversion began Dec. 2, 1936.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 3,410 ft³/s (96.6 m³/s) Apr. 27, 1944; no flow Aug. 16, 24-27, 30, 31, 1966, flood damage to canal being repaired.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 3,220 ft³/s (91.2 m³/s) Nov. 7; minimum daily, 1.0 ft³/s (0.028 m³/s) Dec. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1720	3080	9.2	88	891	707	2890	1900	2160	664	241	1080
2	1750	3160	4.5	60	1490	1070	2880	1870	2320	615	217	979
3	1850	2800	73	59	1680	1500	2910	1920	2350	575	182	905
4	1840	2490	289	38	1670	1020	2880	1890	2250	566	172	819
5	1840	2560	1190	33	1900	1420	2870	1890	2330	470	121	822
6	1870	3120	1490	24	2150	2140	2950	1850	2280	408	92	800
7	1860	3220	2610	14	2230	2080	2920	1790	2140	347	80	749
8	1760	3210	2590	9.4	2170	2110	2850	1720	2050	284	64	723
9	1690	3040	1880	38	2110	2060	2840	1700	2000	244	67	715
10	1620	787	3050	348	2050	2350	2820	1760	1980	193	67	771
11	1590	1440	1760	542	2140	1620	2840	1710	1900	207	202	763
12	1610	2630	306	667	2170	2110	2900	1750	1850	188	330	828
13	1680	2530	30	989	2200	2280	2830	1790	1770	172	465	844
14	1640	2630	11	1090	2190	1930	2840	1890	1730	166	765	820
15	1640	2550	17	540	2200	1120	2680	1990	1800	221	818	836
16	1690	2590	4.5	573	2190	1950	2610	2010	1700	291	2070	929
17	1670	2560	1.0	965	2160	2910	2490	2310	1700	236	1650	957
18	1720	2400	16	143	2110	3010	2470	2460	1730	215	1350	930
19	1750	2610	148	67	2100	2800	2250	2460	1730	226	1370	942
20	1800	2770	244	42	2230	2670	2080	2250	1800	238	1220	954
21	1800	3100	289	629	2250	2820	2080	2060	1690	214	1070	1040
22	1880	929	117	676	2220	2790	2040	1890	1820	202	971	1080
23	1930	100	1220	658	2170	2790	2010	1770	1750	157	889	1140
24	2190	543	1720	1680	2220	2780	2050	1640	1610	132	825	1120
25	1980	1460	202	630	2260	2680	2050	1520	1560	167	756	1100
26	1880	2930	1440	45	2220	2740	2040	1490	1460	248	758	1180
27	1830	3100	3030	53	2210	2800	2000	1450	1300	363	727	1190
28	1820	423	2510	351	1850	2790	2000	1480	1110	406	702	1180
29	1810	16	158	610	771	2800	2000	1510	959	387	942	1210
30	2290	3.0	1510	630	---	2740	1950	1430	840	422	1010	1200
31	2830	---	912	684	---	2800	---	1470	---	354	1260	---
TOTAL	56830	64781.0	28831.2	12975.4	58202	69387	75020	56620	53669	9578	21453	28606
MEAN	1833	2159	930	419	2007	2238	2501	1826	1789	309	692	954
MAX	2830	3220	3050	1680	2260	3010	2950	2460	2350	664	2070	1210
MIN	1590	3.0	1.0	9.4	771	707	1950	1430	840	132	64	715
AC-FT	112700	128500	57190	25740	115400	137600	148800	112300	106500	19000	42550	56740

CAL YR 1979 TOTAL 655104.2 MEAN 1795 MAX 3220 MIN 1.0 AC-FT 1299000
WTR YR 1980 TOTAL 535952.6 MEAN 1464 MAX 3220 MIN 1.0 AC-FT 1063000

06793000 LOUP RIVER NEAR GENOA, NE
(National stream-quality accounting network station)

LOCATION.--Lat 41°25'05", long 97°43'25", in SW1/4NE1/4 sec.25, T.17 N., R.4 W., Nance County, Hydrologic Unit 10210009, on right bank 12 ft (4 m) downstream from bridge on State Highway 39, 2 mi (3 km) south of Genoa, 3 mi (5 km) upstream from Beaver Creek, and 6 mi (10 km) downstream from diversion dam of Loup River Public Power District.

DRAINAGE AREA.--14,400 mi² (37,300 km²), approximately, of which about 5,650 mi² (14,600 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1928 to June 1932, October 1943 to current year (October 1953 to April 1955, monthly discharge only).

REVISED RECORDS.--WDR NE-74: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,540.13 ft (469.432 m) National Geodetic Vertical Datum of 1929. Aug. 17, 1928, to June 30, 1932, nonrecording gage at present site at datum 1.49 ft (0.454 m) higher. Oct. 1, 1943 to Sept. 16, 1974 (Apr. 26 to Dec. 22, 1949, wire-weight gage only) at present site and datum. Sept. 17, 1974 to Nov. 21, 1977 at site 300 ft (90 m) upstream at present datum.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow of stream affected by power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. Records do not include flow of Loup River power canal (station 06792500) which diverts at point 6 mi (10 km) upstream and returns to Platte River below mouth of Loup River; diversion began Dec. 2, 1936.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 129,000 ft³/s (3,650 m³/s) Aug. 13, 1966, gage height, 13.93 ft (4.246 m), from rating curve extended above 42,000 ft³/s (1,190 m³/s) on basis of indirect measurement of peak flow; no flow at times during 1956, 1959, 1961, 1963, 1970, 1973, 1974, 1975, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,330 ft³/s (208 m³/s) Dec. 22, gage height, 7.50 ft (2.286 m), backwater from ice; maximum gage height, 10.79 ft (3.289 m) Jan. 18, backwater from ice; no flow Aug. 8, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	2340	734	3150	400	2500	214	14	54	5.1	2.1	7.8
2	11	550	922	2880	370	1100	436	14	24	4.3	1.9	19
3	11	55	1180	3000	300	500	1760	14	11	4.8	1.0	86
4	11	39	1720	2850	270	1500	2340	23	11	3.6	1.1	88
5	10	68	3050	2510	200	1600	1110	15	11	3.5	1.1	82
6	9.6	180	3500	2510	110	1400	778	13	9.9	3.1	.40	50
7	8.7	315	2040	700	130	1900	1600	13	29	2.8	.20	24
8	8.7	140	2160	600	590	2100	1720	13	9.9	2.6	.00	46
9	8.6	66	3000	600	1760	2400	1430	14	7.2	2.3	.00	94
10	8.4	2660	219	1000	1400	2300	866	17	6.1	2.2	.10	23
11	8.1	1110	1600	982	1320	2600	445	12	6.6	1.9	2.2	68
12	7.5	38	2500	795	780	1800	634	13	6.6	1.8	1.7	48
13	7.6	65	2500	1720	680	2000	610	14	6.6	1.7	1.7	48
14	7.7	24	2700	1800	410	2500	368	15	7.5	1.7	3.8	14
15	7.5	20	2800	3000	330	4000	143	16	15	4.3	3.6	29
16	7.5	16	1200	2500	330	1500	86	20	7.6	2.0	94	17
17	7.0	14	309	2000	330	315	70	46	6.8	2.2	47	5.9
18	7.2	13	264	2800	250	88	124	38	6.6	2.6	19	3.9
19	7.2	144	587	2900	220	70	57	19	6.6	2.1	18	3.6
20	7.0	23	1200	2900	180	64	45	15	6.8	1.3	12	2.8
21	6.1	116	4000	2300	1150	59	62	14	7.8	1.1	11	2.5
22	6.8	2000	5000	2300	2400	55	68	14	23	1.0	9.9	2.2
23	6.0	2400	3000	2330	3100	52	25	14	8.0	.90	8.8	2.3
24	7.8	922	2950	1300	3400	59	18	13	7.2	.90	7.8	2.4
25	6.4	384	3000	1000	2800	50	18	12	6.8	5.8	9.1	2.3
26	5.9	50	1960	1300	3000	48	19	12	5.9	3.1	11	2.3
27	5.2	114	191	1200	3300	48	16	13	6.4	2.7	8.2	2.2
28	4.8	2400	544	1000	3350	55	14	13	4.3	2.3	7.8	2.1
29	7.0	2200	4260	900	3500	942	14	12	4.3	2.1	7.8	1.9
30	19	1540	1600	700	---	1600	15	12	5.1	2.0	7.8	1.8
31	293	---	1920	500	---	409	---	27	---	2.1	7.8	---
TOTAL	541.3	20006	62610	56027	36360	35614	15105	514	328.6	79.90	307.90	782.0
MEAN	17.5	667	2020	1807	1254	1149	504	16.6	11.0	2.58	9.93	26.1
MAX	293	2660	5000	3150	3500	4000	2340	46	54	5.8	94	94
MIN	4.8	13	191	500	110	48	14	12	4.3	.90	.00	1.8
AC-FT	1070	39680	124200	111100	72120	70640	29960	1020	652	158	611	1550

CAL YR 1979 TOTAL 246154.30 MEAN 674 MAX 9930 MIN 4.8 AC-FT 488200
WTR YR 1980 TOTAL 228275.70 MEAN 624 MAX 5000 MIN .00 AC-FT 452800

06793000 LOUP RIVER NEAR GENOA, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976, 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
DEC										
05...	1530	1600	260	7.9	1.0	80	78	13.6	K54	300
06...	0900	4510	235	7.8	.5	65	64	13.2	K108	580

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
DEC										
05...	100	0	33	5.4	8.1	.3	7.0	120	7.9	1.9
06...	99	0	31	5.1	9.2	.4	6.9	110	13	2.0

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
DEC										
05...	.2	48	185	188	.25	799	.82	.82	.09	.10
06...	.3	46	179	184	.24	2180	.80	.80	.08	.09

DATE	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N) (00624)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)
DEC									
05...	1.3	.43	1.4	.87	.53	2.2	1.4	.490	.160
06...	1.5	.54	1.6	.97	.63	2.4	1.5	.360	.150

DATE	TIME	ARSENIC SUS-PENDED TOTAL (UG/L AS AS) (01001)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, SUS-PENDED RECOV-ERABLE (UG/L AS BA) (01006)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD) (01026)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR) (01031)
DEC											
05...	1530	1	6	600	500	100	1	0	1	20	20
06...	0900	1	6	600	500	100	2	0	3	10	10

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO) (01036)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU) (01041)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE) (01044)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)
DEC											
05...	0	4	1	<3	15	8	7	7500	7500	50	13
06...	0	5	2	<3	7	1	6	6800	6800	50	16

06793000 LOUP RIVER NEAR GENOA, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB) (01050)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN) (01054)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG) (71895)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	NICKEL, SUS-PENDED RECOV-ERABLE (UG/L AS NI) (01066)
DEC										
05...	11	2	250	230	20	.1	.1	.0	16	16
06...	11	5	220	200	20	.1	.1	.0	12	12

DATE	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE) (01146)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, SUS-PENDED RECOV-ERABLE (UG/L AS AG) (01076)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN) (01091)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
DEC										
05...	0	1	0	1	16	16	0	50	40	8
06...	0	1	0	1	0	0	0	80	40	40

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO DECEMBER 1979

DATE	DEC 5,79
TIME	1530
TOTAL CELLS/ML	24000
DIVERSITY: DIVISION	0.3
.CLASS	0.3
..ORDER	0.4
...FAMILY	1.6
....GENUS	1.6

ORGANISM	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)		
.CHLOROPHYCEAE		
..CHLOROCOCCALES		
...OOCYSTACEAE		
....ANKISTRODESMUS	210	1
...SCENEDESMACEAE		
....SCENEDESMUS	1200	5
CHRYSOPHYTA		
.BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	310	1
..PENNALES		
...ACHNANTHACEAE		
....COCCONEIS	830	3
...CYMBELLACEAE		
....EPITHEMIA	*	0
....RHOPALODIA	*	0
...DIATOMACEAE		
....DIATOMA	930	4
...FRAGILARIACEAE		
....FRAGILARIA	18000#	75
...GOMPHONEMATACEAE		
....GOMPHONEMA	210	1
...NAVICULACEAE		
....NAVICULA	620	3
...NITZSCHIACEAE		
....NITZSCHIA	1000	4
...SURIRELLACEAE		
....SURIRELLA	310	1

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06793000 LOUP RIVER NEAR GENOA, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE, WATER (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)
NOV							
14...	1315	26	3.5	106	7.4	--	--
DEC							
05...	1445	1600	1.0	2690	11600	1	2
06...	1000	4510	.5	2770	33700	9	11
MAR							
20...	1115	64	--	124	21	--	--
APR							
09...	1510	1720	11.0	1290	5990	--	--
MAY							
20...	1500	15	20.0	39	1.6	--	--
JUN							
11...	1430	7.0	26.0	48	.91	--	--
JUL							
23...	0915	1.1	21.0	44	.13	--	--
AUG							
13...	1700	1.9	31.5	328	1.7	--	--
SEP							
23...	1330	2.1	20.5	235	1.3	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)
NOV						
14...	--	--	--	--	--	--
DEC						
05...	3	23	41	84	100	--
06...	14	29	42	83	99	100
MAR						
20...	--	82	86	98	100	--
APR						
09...	--	47	63	93	100	--
MAY						
20...	--	74	77	83	100	--
JUN						
11...	--	86	92	99	100	--
JUL						
23...	--	88	--	--	--	--
AUG						
13...	--	3	4	17	94	100
SEP						
23...	--	7	10	61	99	100

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	NUMBER OF SAM-PLING POINTS (00063)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)
NOV												
14...	1315	26	8	0	12	71	96	99	100	--	--	--
DEC												
05...	1445	1600	10	0	1	21	87	94	97	99	99	100
06...	1000	4510	5	0	6	56	94	97	98	98	99	100
MAR												
20...	1115	64	4	0	1	29	89	97	98	99	100	--
APR												
09...	1510	1720	3	0	3	60	97	98	99	100	--	--
MAY												
20...	1500	15	3	--	0	18	74	84	87	92	99	100
JUN												
11...	1430	7.0	9	--	0	13	78	99	100	--	--	--
JUL												
23...	0915	1.1	4	--	0	12	34	48	54	67	83	100
AUG												
13...	1700	1.9	3	--	0	11	70	82	84	91	100	--
SEP												
23...	1330	2.1	3	0	3	47	88	98	99	100	--	--

06793500 BEAVER CREEK AT LORETTO, NE

LOCATION.--Lat 41°45'50", long 98°04'50", in NE1/4SE1/4 sec.26, T.21 N., R.7 W., Boone County, Hydrologic Unit 10210009, on left bank 5 ft (2 m) downstream from county road bridge, at the west edge of Loretto.

DRAINAGE AREA.--311 mi^2 (805 km^2), of which about 100 mi^2 (259 km^2) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1944 to September 1953, October 1979 to September 1980.

GAGE.--Water-stage recorder. Datum of gage is 1,785.95 ft (544.358 m) National Geodetic Vertical Datum of 1929. Prior to May 15, 1945, staff gage at bridge 25 ft (7.6 m) upstream, May 15, 1945 to Aug. 16, 1946, water-stage recorder at site 85 ft (25.9 m) upstream, Aug. 17, 1946, to Sept. 30, 1953, at site 5 ft (1.5 m) downstream, all at same datum.

REMARKS.--Records good except those for winter period, which are poor. Minor diversions for irrigation above station.

AVERAGE DISCHARGE.--10 years (water years 1945-53, 1980), 78.8 ft^3/s (2.232 m^3/s), 57,090 acre-ft/yr (70.4 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,570 ft^3/s (129 m^3/s) June 2, 1950, gage height, 11.74 ft (3.578 m); minimum daily, 12 ft^3/s (0.34 m^3/s) July 8, Aug. 8, 9, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 695 ft^3/s (19.7 m^3/s) May 27 at 1500, gage height, 6.50 ft (1.981 m), from floodmark, no other peak above base of 500 ft^3/s (14.2 m^3/s); minimum daily, 12 ft^3/s (0.34 m^3/s) July 8, Aug. 8, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	102	56	60	50	62	176	46	48	27	17	29
2	29	78	62	56	54	76	215	45	46	23	17	29
3	29	68	66	54	58	86	254	45	47	23	16	28
4	30	63	69	56	60	80	290	45	45	22	16	26
5	32	65	85	56	62	72	276	45	45	20	17	26
6	33	82	93	54	64	76	223	44	42	19	17	27
7	34	74	83	52	60	90	162	43	40	17	16	26
8	35	70	80	54	54	82	114	44	39	12	12	27
9	34	67	74	56	52	80	93	45	41	13	12	26
10	33	64	72	60	54	81	82	45	39	15	17	26
11	34	61	71	66	54	80	75	44	40	17	25	28
12	35	59	64	74	52	78	70	45	37	19	26	28
13	37	59	68	81	54	77	66	47	39	20	22	27
14	39	57	72	78	56	76	63	47	38	21	21	26
15	40	57	76	73	52	79	61	56	49	21	23	27
16	40	55	64	74	50	84	59	58	51	21	24	27
17	40	57	66	70	50	78	57	72	44	20	57	27
18	40	58	80	66	56	75	56	75	42	20	36	29
19	50	55	87	62	62	74	52	69	40	19	31	30
20	51	55	77	58	81	71	52	61	39	23	29	30
21	46	66	74	55	96	72	52	55	40	19	27	33
22	45	70	72	53	97	71	49	50	40	17	26	33
23	47	59	74	52	82	68	47	47	43	17	24	32
24	46	72	78	52	76	68	46	46	41	19	24	32
25	46	67	70	52	74	68	47	44	39	24	21	32
26	45	66	65	50	67	70	47	44	38	30	22	33
27	45	64	63	48	68	75	52	213	34	29	24	34
28	44	62	62	58	70	88	49	81	30	26	27	34
29	44	58	63	54	67	137	47	54	30	22	26	34
30	55	54	63	52	---	155	45	48	29	20	26	32
31	97	---	63	46	---	174	---	48	---	16	27	---
TOTAL	1283	1944	2212	1832	1832	2603	2977	1751	1215	631	725	878
MEAN	41.4	64.8	71.4	59.1	63.2	84.0	99.2	56.5	40.5	20.4	23.4	29.3
MAX	97	102	93	81	97	174	290	213	51	30	57	34
MIN	28	54	56	46	50	62	45	43	29	12	12	26
AC-FT	2540	3860	4390	3630	3630	5160	5900	3470	2410	1250	1440	1740

WTR YR 1980 TOTAL 19883 MEAN 54.3 MAX 290 MIN 12 AC-FT 39440

06794000 BEAVER CREEK AT GENOA, NE

LOCATION.--Lat 41°26'32", long 97°44'11", in NE1/4SE1/4 sec.14, T.17 N., R.4 W., Nance County, Hydrologic Unit 10210009, on left bank in city park at southwest corner at Genoa, 0.2 mi (0.3 km) downstream from Union Pacific Railroad bridge, 0.2 mi (0.3 km) upstream from bridge on State Highway 39, and 2.5 mi (4.0 km) upstream from mouth.

DRAINAGE AREA.--647 mi² (1,676 km²), of which about 410 mi² (1,062 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1940 to current year.

REVISED RECORDS.--WSP 1310: 1942(M). WDR NE-73: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,542.13 ft (470.041 m) National Geodetic Vertical Datum of 1929. October 1940 to Nov. 5, 1942, nonrecording gage and Nov. 6, 1942, to Nov. 1, 1955, water-stage recorder, at site 0.4 mi (0.6 km) upstream at datum 4.62 ft (1.408 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected slightly by ground-water and surface-water withdrawals for irrigation.

AVERAGE DISCHARGE.--40 years, 122 ft³/s (3.455 m³/s), 88,390 acre-ft/yr (0.109 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,200 ft³/s (600 m³/s) July 19, 1950, gage height, 18.70 ft (5.700 m), site and datum then in use, from rating curve extended above 8,500 ft³/s (241 m³/s); minimum daily, 0.41 ft³/s (0.012 m³/s) July 25, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,380 ft³/s (67.4 m³/s) Aug. 16 at 1430, gage height, 10.34 ft (3.152 m), no other peaks above base of 1,000 ft³/s (28.3 m³/s); minimum daily, 0.5 ft³/s (0.014 m³/s) Aug. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	98	74	72	66	100	204	77	85	36	4.2	35
2	45	112	86	80	70	115	215	77	85	31	2.2	33
3	44	94	96	82	70	130	263	77	85	29	1.4	34
4	44	84	100	80	72	120	309	76	77	26	1.8	33
5	45	83	106	70	76	120	330	76	70	24	.50	33
6	44	82	104	64	78	130	328	74	68	22	.90	30
7	44	89	102	52	78	150	291	73	66	18	1.2	30
8	45	90	100	62	74	282	233	71	64	16	1.7	31
9	45	84	96	80	68	171	183	71	62	14	1.7	31
10	46	83	94	100	74	139	170	72	62	12	3.2	29
11	45	80	86	94	70	122	160	72	60	11	7.9	29
12	47	80	84	96	70	114	150	71	58	10	8.5	29
13	48	79	86	100	76	112	140	72	60	10	6.7	31
14	46	79	94	96	76	113	135	77	58	9.6	7.3	31
15	48	79	94	96	74	114	125	78	100	9.2	8.5	31
16	51	78	86	96	72	118	120	82	65	8.8	980	31
17	51	78	74	98	70	120	115	95	69	8.0	347	32
18	52	78	100	100	76	118	112	97	64	7.8	66	31
19	55	77	110	96	90	115	110	108	61	7.6	39	30
20	57	80	110	90	150	114	105	103	59	11	39	32
21	63	84	106	94	250	111	102	108	58	8.0	39	34
22	59	80	96	86	340	108	99	91	64	6.5	37	33
23	58	78	100	84	330	105	95	85	60	6.2	34	35
24	59	80	98	96	250	102	90	82	60	6.0	31	34
25	59	82	96	70	190	101	87	79	60	5.7	29	33
26	59	86	96	50	150	103	86	77	58	8.5	28	33
27	58	84	98	58	130	102	83	76	54	7.0	27	33
28	58	82	88	64	121	109	83	170	48	8.8	26	28
29	61	80	78	68	110	127	88	144	42	8.5	28	34
30	75	86	76	66	---	167	80	91	37	8.2	39	34
31	86	---	74	64	---	185	---	87	---	5.7	35	---
TOTAL	1642	2509	2888	2504	3421	3937	4691	2689	1919	400.1	1881.70	957
MEAN	53.0	83.6	93.2	80.8	118	127	156	86.7	64.0	12.9	60.7	31.9
MAX	86	112	110	100	340	282	330	170	100	36	980	35
MIN	44	77	74	50	66	100	80	71	37	5.7	.50	28
AC-FT	3260	4980	5730	4970	6790	7810	9300	5330	3810	794	3730	1900

CAL YR 1979 TOTAL 42008.00 MEAN 115 MAX 1070 MIN 23 AC-FT 83320
WTR YR 1980 TOTAL 29438.80 MEAN 80.4 MAX 980 MIN .50 AC-FT 58390

06794000 BEAVER CREEK AT GENOA, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1978 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 25...	1600	59	329	8.1	10.4	35	10.5	3.4	180	700
NOV 14...	1415	80	331	8.0	4.0	35	--	3.3	200	780
DEC 05...	1130	106	287	7.6	.5	20	12.0	4.4	430	K1860
JAN 16...	1330	97	278	7.7	1.0	40	13.5	2.8	470	K11700
FEB 06...	0930	78	314	7.7	.0	20	8.0	2.8	540	140
MAR 19...	1330	114	286	8.0	8.0	60	12.4	4.0	320	2600
APR 08...	1545	221	323	8.1	12.0	200	8.0	5.4	5200	830
MAY 21...	1300	97	315	7.9	20.0	--	9.0	2.6	520	300
JUN 11...	1430	60	362	8.4	23.0	60	7.7	4.7	K720	2200
JUL 22...	1510	6.5	468	8.5	31.0	20	9.8	5.6	280	1800
AUG 13...	1500	6.8	475	8.4	29.0	15	8.3	3.8	560	340
SEP 23...	1445	35	345	8.2	16.0	35	9.8	2.2	540	1000

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT 25...	2.9	219	.30	34.9	.64	.02	.74	.76	1.4	.390
NOV 14...	4.0	214	.29	46.2	.84	.24	.76	1.0	1.8	.420
DEC 05...	3.1	194	.26	55.5	.72	.23	.87	1.1	1.8	.390
JAN 16...	3.1	217	.30	56.8	.78	.25	1.2	1.4	2.2	.480
FEB 06...	3.4	220	.30	46.9	.82	.18	.39	.57	1.4	.310
MAR 19...	3.6	218	.30	67.1	.60	.08	1.7	1.8	2.4	.520
APR 08...	5.9	247	.34	147	.53	.40	3.1	3.5	4.0	.530
MAY 21...	2.6	211	.29	55.6	.50	.10	1.2	1.3	1.8	.590
JUN 11...	2.6	215	.29	35.3	.10	.22	1.1	1.3	1.4	.530
JUL 22...	5.5	325	.44	5.73	.00	.00	1.8	1.8	1.8	.320
AUG 13...	7.0	291	.40	5.39	--	.02	.76	.78	--	.430
SEP 23...	2.8	199	.27	18.8	.40	.02	.75	.77	1.2	.450

06794000 BEAVER CREEK AT GENOA, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLOR (PLAT-INUM COBALT UNITS) (00080)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
NOV 14...	1415	20	140	0	45	7.6	12	.4	9.2	160	16
FEB 06...	0930	10	150	0	46	7.3	9.1	.3	6.3	150	10
MAY 21...	1300	30	140	0	43	6.9	9.7	.4	7.1	140	7.6
AUG 13...	1500	20	210	0	63	12	12	.4	10	210	20

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)
NOV 14...	.2	43	237	.81	.280	7	200	40	2	0
FEB 06...	.2	43	219	.82	.230	--	--	30	--	--
MAY 21...	.3	38	202	.50	.330	9	200	60	2	0
AUG 13...	.4	29	282	.42	.320	--	--	110	--	--

DATE	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG) (71895)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV 14...	8	40	0	20	.1	.0	.1	1	0	30
FEB 06...	--	30	--	20	--	--	--	--	--	--
MAY 21...	7	70	2	10	.3	.0	.3	1	0	30
AUG 13...	--	<10	--	50	--	--	--	--	--	--

06795500 SHELL CREEK NEAR COLUMBUS, NE

LOCATION.--Lat 41°31'33", long 97°16'55", in NE1/4NW1/4 sec.23, T.18 N., R.1 E., Platte County, Hydrologic Unit 10200201, on right bank 80 ft (24 m) upstream from county road bridge, 1 mi (2 km) upstream from Loseke Creek, and 7 mi (11 km) northeast of Columbus.

DRAINAGE AREA.--270 mi^2 (700 km^2), approximately.

PERIOD OF RECORD.--August 1947 to September 1975, October 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,435 ft (437.4 m).

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--31 years, 40.8 ft^3/s (1.155 m^3/s), 29,560 acre-ft/yr (36.4 hm^3/yr); median of yearly mean discharges, 33 ft^3/s (0.935 m^3/s), 23,900 acre-ft/yr (29.5 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,970 ft^3/s (169 m^3/s) June 3, 1950, gage height, 21.38 ft (6.517 m); minimum daily, 0.4 ft^3/s (0.011 m^3/s) July 27, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 2, 1947, reached a stage of 21.7 ft (6.61 m), from floodmark, discharge, 4,600 ft^3/s (130 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 389 ft^3/s (11.0 m^3/s) Aug. 17, gage height, 8.34 ft (2.542 m), no peak above base of 700 ft^3/s (19.8 m^3/s); minimum daily, 1.9 ft^3/s (0.054 m^3/s) July 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	23	7.0	8.2	5.4	30	25	11	9.5	6.5	3.4	4.5
2	3.9	14	7.6	9.4	7.4	42	24	11	9.0	5.9	3.8	7.8
3	3.9	10	9.0	9.0	7.2	45	44	11	9.1	6.6	3.0	3.3
4	3.9	8.2	10	9.4	7.6	43	85	11	8.7	6.8	4.1	3.0
5	3.9	8.1	9.0	9.6	8.2	40	57	10	9.4	7.5	4.6	2.9
6	4.5	10	8.2	10	7.8	54	34	10	8.9	7.0	4.5	3.1
7	4.3	9.9	7.8	8.0	7.6	60	26	9.9	8.5	6.5	2.1	3.1
8	3.9	10	7.4	7.4	7.2	80	21	9.6	7.9	6.5	2.3	3.0
9	5.6	9.0	9.0	7.8	7.0	84	18	9.1	7.8	5.7	2.8	2.8
10	5.0	8.2	10	12	9.0	70	16	8.9	7.6	4.1	3.1	2.9
11	4.1	7.9	8.4	9.0	8.6	60	15	9.1	6.7	3.0	4.3	3.0
12	4.8	7.7	7.8	13	11	56	15	9.2	6.7	3.1	4.4	3.0
13	4.9	7.7	8.4	14	12	60	15	9.5	7.1	2.7	4.9	2.9
14	5.0	7.7	9.0	12	12	68	14	9.3	6.8	2.6	4.0	2.9
15	4.9	8.6	9.2	11	11	54	14	10	8.4	3.9	4.8	2.9
16	4.9	7.7	7.0	10	11	24	14	9.9	13	6.2	12	3.6
17	5.7	7.3	9.0	9.6	10	17	13	10	10	10	278	2.9
18	6.2	7.3	11	10	20	19	13	11	9.3	6.8	85	2.9
19	5.8	7.1	10	9.4	25	17	13	11	22	5.9	24	2.9
20	6.0	7.0	10	9.0	30	14	13	11	14	3.9	9.9	3.1
21	6.0	6.8	10	9.4	50	14	12	10	8.2	3.8	5.4	2.9
22	6.2	6.4	9.8	9.0	70	13	12	9.7	8.0	2.6	4.2	3.0
23	7.5	6.0	11	8.6	90	13	12	9.2	11	3.2	3.9	3.1
24	7.6	7.0	11	10	150	13	11	10	14	4.9	3.2	3.1
25	5.7	8.0	12	7.0	110	13	11	9.4	9.6	4.2	3.4	3.1
26	5.5	8.0	14	6.6	70	13	11	9.2	8.2	4.1	3.7	2.9
27	6.3	7.6	13	6.2	50	13	11	9.1	7.5	2.8	3.4	3.0
28	5.1	7.0	10	6.4	40	14	11	8.7	7.0	2.6	3.8	3.2
29	5.2	7.4	9.2	6.4	37	18	11	8.7	6.7	2.2	3.5	3.1
30	10	8.0	10	6.0	---	34	11	8.5	6.8	1.9	3.7	2.9
31	26	---	8.8	5.0	---	34	---	8.6	---	3.5	3.7	---
TOTAL	186.0	258.6	293.6	278.4	892.0	1129	602	302.6	277.4	147.0	506.9	96.8
MEAN	6.00	8.62	9.47	8.98	30.8	36.4	20.1	9.76	9.25	4.74	16.4	3.23
MAX	26	23	14	14	150	84	85	11	22	10	278	7.8
MIN	3.7	6.0	7.0	5.0	5.4	13	11	8.5	6.7	1.9	2.1	2.8
AC-FT	369	513	582	552	1770	2240	1190	600	550	292	1010	192

CAL YR 1979 TOTAL 10609.2 MEAN 29.1 MAX 590 MIN 1.3 AC-FT 21040
WTR YR 1980 TOTAL 4970.3 MEAN 13.6 MAX 278 MIN 1.9 AC-FT 9860

06796000 PLATTE RIVER AT NORTH BEND, NE

LOCATION.--Lat 41°27'10", long 96°45'50", in SE1/4 sec.7, T.17 N., R.6 E., Dodge County, Hydrologic Unit 10200201, on left bank 80 ft (24 m) upstream from bridge on State Highway 79, 1 mi (2 km) south of North Bend, and 5 mi (8 km) downstream from Shell Creek.

DRAINAGE AREA.--77,100 mi² (199,700 km²), approximately, of which about 63,300 mi² (163,900 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1949 to current year.

REVISED RECORDS.--WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,262.32 ft (384.755 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 12, 1951, nonrecording gage and Sept. 12, 1951, to Sept. 30, 1970, water-stage recorder, at present site at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--31 years, 4,026 ft³/s (114.0 m³/s), 2,917,000 acre-ft/yr (3.60 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 112,000 ft³/s (3,170 m³/s) Mar. 29, 1960, gage height, 10.04 ft (3.060 m), present datum; maximum gage height, 15.55 ft (4.740 m) Mar. 19, 1978, ice jam; minimum daily discharge, 36 ft³/s (1.02 m³/s) July 29, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 21,700 ft³/s (615 m³/s) June 6, gage height, 6.95 ft (2.118 m); maximum gage height, 10.44 ft (3.182 m) Jan. 18, backwater from ice; minimum daily discharge, 163 ft³/s (4.62 m³/s) Aug. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1300	3290	2700	4140	1400	9600	9840	6850	14700	2370	470	1840
2	1140	3900	2500	3700	1700	9000	9640	6310	15400	1590	235	1210
3	1220	3680	2810	3500	2200	8200	11300	6860	14900	1740	223	1050
4	1380	2700	3410	3400	2700	7600	13000	6690	15300	2250	197	1510
5	1290	2990	3880	3300	3200	7200	11400	7070	16600	1330	205	733
6	1310	2800	5280	3200	4000	7000	11200	6920	16600	1370	165	845
7	1450	2920	6220	3100	4500	7600	10400	8250	14300	1350	200	960
8	1330	3330	5540	2700	4600	9000	10300	8230	12900	920	190	740
9	1380	3080	4930	2300	4500	12000	10300	8080	11600	900	180	769
10	1360	3330	5350	2100	4100	16000	9600	7820	10500	860	170	991
11	1160	2180	4970	2000	4300	15000	8920	8660	9320	710	453	565
12	1310	3900	3570	1900	4100	14000	8860	7610	8710	650	383	788
13	1320	3140	3300	1900	4300	13000	9500	8310	8320	600	269	1100
14	1520	3160	3200	2000	4700	11000	8910	9620	7430	555	334	733
15	1440	3050	3200	2100	4500	9200	8560	9400	7720	590	1060	1100
16	1600	3360	3000	2500	4400	8640	8740	9580	6950	630	1360	1030
17	1650	3880	2700	3000	4700	7710	7780	10700	6660	700	2890	986
18	1500	3520	2900	3500	4800	7550	7720	11500	5270	555	3040	1240
19	1730	3950	3300	4200	5200	6750	7060	12100	5970	530	1700	942
20	1420	3340	3900	5000	5200	6640	6980	13200	5400	470	1470	1110
21	1660	4650	4500	5100	5800	6790	6510	14000	5880	440	1310	1100
22	1720	4240	6000	5100	6400	6050	6700	13000	5980	375	1080	1210
23	1790	3990	9830	5000	7000	6740	5720	12600	6960	338	1180	1290
24	1360	3840	9020	4500	7600	7710	5190	12300	7280	282	1370	1210
25	1980	3920	8620	3600	8000	6290	5890	12500	5650	275	1200	1340
26	1860	4390	7890	3000	9000	6250	6050	11900	5910	365	1240	1580
27	2000	4420	6830	2400	9700	6460	6760	12000	4340	430	1140	1310
28	1900	3900	6480	2100	10000	6680	6340	13200	3270	420	1020	1560
29	1890	3200	5310	1600	9800	5900	6830	14900	3170	505	1050	1610
30	2620	2800	5400	1200	---	10200	6650	14200	2180	390	1280	1920
31	3740	---	5880	1100	---	11900	---	13300	---	520	1500	---
TOTAL	50330	104850	152420	94240	152400	273660	252650	317660	265170	25010	28564	34372
MEAN	1624	3495	4917	3040	5255	8828	8422	10250	8839	807	921	1146
MAX	3740	4650	9830	5100	10000	16000	13000	14900	16600	2370	3040	1920
MIN	1140	2180	2500	1100	1400	5900	5190	6310	2180	275	165	565
AC-FT	99830	208000	302300	186900	302300	542800	501100	630100	526000	49610	56660	68180

CAL YR 1979 TOTAL 1474674 MEAN 4040 MAX 23200 MIN 564 AC-FT 2925000
WTR YR 1980 TOTAL 1751326 MEAN 4785 MAX 16600 MIN 165 AC-FT 3474000

06796000 PLATTE RIVER AT NORTH BEND, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1973 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1972 to September 1977.
WATER TEMPERATURES: October 1972 to September 1977.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 790 micromhos June 25, 1973; minimum daily, 218 micromhos Sept. 19, 1977.
WATER TEMPERATURE: Maximum, 29.5°C several days during summer periods; minimum, 0.0°C on many days during winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPERATURE, WATER (DEG C) (00010)	TURBIDITY (JTU) (00070)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L) (00310)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 11...	0950	1050	377	8.2	11.5	80	10.4	3.3	K33	K200
NOV 15...	1220	3010	451	8.2	4.0	25	11.7	3.2	K80	120
DEC 07...	1045	6930	360	7.9	15.0	90	13.1	5.4	300	820
JAN 22...	1500	5070	561	8.2	.0	20	13.8	2.6	K86	160
FEB 07...	1345	4570	698	8.1	.0	7	13.2	2.3	83	170
MAR 18...	1645	7880	448	8.1	8.0	55	11.2	7.2	K70	K120
APR 09...	1020	11000	470	6.9	7.0	150	10.6	5.3	K425	140
MAY 22...	1330	13000	875	8.1	21.0	--	9.9	3.1	K60	7400
JUN 04...	1130	16200	735	7.8	21.0	280	7.4	3.7	5200	16000
13...	1030	10100	658	8.7	23.0	35	9.7	7.7	480	300
JUL 24...	1720	275	710	7.3	30.0	15	7.6	6.0	K30	K150
AUG 14...	1445	360	543	7.9	23.0	70	9.2	5.3	5100	5600
SEP 25...	1515	1890	435	8.6	18.0	45	10.2	--	200	140

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)
OCT 11...	11	261	.36	740	.37	.06	.87	.93	1.3	.290
NOV 15...	12	294	.40	2390	.99	.28	1.2	1.5	2.5	.240
DEC 07...	8.5	265	.36	4960	.80	.08	2.4	2.5	3.3	.490
JAN 22...	16	391	.53	5350	1.0	.09	.40	.49	1.5	.240
FEB 07...	21	506	.69	6240	1.2	.07	.73	.80	2.0	.180
MAR 18...	15	--	.32	4980	1.0	.33	1.4	1.7	2.7	.360
APR 09...	14	338	.46	10000	.86	.32	2.5	2.8	3.7	.390
MAY 22...	25	560	.76	19700	--	.07	1.4	1.5	--	.190
JUN 04...	21	--	--	--	.52	.10	2.6	2.7	3.2	.630
13...	20	431	.59	11800	.01	.22	1.8	2.0	2.0	.250
JUL 24...	21	479	.65	356	.00	.00	1.1	1.1	1.1	.420
AUG 14...	19	358	.49	348	.00	.00	1.3	1.3	1.3	.350
SEP 25...	12	298	.41	1520	.00	.00	1.4	1.4	1.4	.280

06796000 PLATTE RIVER AT NORTH BEND, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD) (01026)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR) (01031)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO) (01036)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)
NOV											
15...	60	--	--	2	--	--	0	--	--	--	--
FEB											
07...	70	--	--	--	--	--	--	--	--	--	--
MAR											
18...	70	4	3	<1	10	10	0	10	7	<3	26
MAY											
22...	120	18	16	2	10	0	10	2	2	0	7
JUN											
04...	140	0	0	1	20	10	10	9	8	1	27
AUG											
14...	120	--	--	--	--	--	--	--	--	--	--

DATE	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU) (01041)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE) (01044)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB) (01050)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN) (01054)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
NOV											
15...	--	13	--	--	<10	--	--	0	--	--	40
FEB											
07...	--	--	--	--	20	--	--	--	--	--	3
MAR											
18...	20	6	5000	5000	40	15	15	0	150	150	5
MAY											
22...	2	5	1300	1300	30	150	150	2	90	80	10
JUN											
04...	18	9	16000	16000	30	23	22	1	560	80	480
AUG											
14...	--	--	--	--	30	--	--	--	--	--	5

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG) (71895)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE) (01146)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN) (01091)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
NOV											
15...	.0	.0	.1	--	--	1	0	--	--	10	--
FEB											
07...	--	--	--	--	--	--	--	--	--	--	--
MAR											
18...	.2	.2	.0	2	1	1	0	50	50	<3	12
MAY											
22...	.3	.1	.2	2	1	1	0	40	30	10	9.7
JUN											
04...	.4	.3	.1	2	1	1	0	80	70	10	23
AUG											
14...	--	--	--	--	--	--	--	--	--	--	--

06796000 PLATTE RIVER AT NORTH BEND, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N) (00624)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC SUS-PENDED TOTAL (UG/L AS AS) (01001)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)
NOV 15...	1.0	--	--	--	--	--	.200	--	--	7	100
FEB 07...	1.2	--	--	--	--	--	.140	--	--	--	--
MAR 18...	1.0	.15	.72	.83	.87	1.9	.210	7	0	7	--
MAY 22...	.50	.01	.72	.77	.73	1.2	.090	6	0	6	--
JUN 04...	.52	.04	.57	2.1	.61	1.2	.160	12	7	5	--
AUG 14...	.00	--	--	--	--	--	.120	--	--	--	--

DATE	TIME	PER-THANE TOTAL (UG/L) (39034)	PCB, TOTAL (UG/L) (39516)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39519)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L) (39250)	ALDRIN, TOTAL (UG/L) (39330)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39333)	CHLOR-DANE, TOTAL (UG/L) (39350)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39351)	DDD, TOTAL (UG/L) (39360)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39363)	DDE, TOTAL (UG/L) (39365)
DEC 07...	1045	--	--	0	--	--	.0	--	0	--	.0	--
FEB 07...	1345	--	--	0	--	--	.0	--	0	--	.0	--
MAR 18...	1645	.00	.0	--	.00	.00	--	.0	--	.00	--	.00
MAY 22...	1330	.00	.0	0	.00	.00	.0	.0	0	.00	.0	.00
JUN 04...	1130	.00	.0	--	.00	.00	--	.0	--	.00	--	.00

DATE	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39368)	DDT, TOTAL (UG/L) (39370)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39373)	DI-AZINON, TOTAL (UG/L) (39570)	DI-AZINON, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39571)	DI-ELDRIN TOTAL (UG/L) (39380)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39383)	ENDO-SULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39393)	ETHION, TOTAL (UG/L) (39398)	ETHION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39399)
DEC 07...	.0	--	.0	--	.0	--	.0	--	--	.0	--	.0
FEB 07...	.0	--	.0	--	.0	--	.0	--	--	.0	--	.0
MAR 18...	--	.00	--	.00	--	.00	--	.00	.00	--	.00	--
MAY 22...	.0	.00	.0	.01	.0	.00	.0	.00	.00	.0	.00	.0
JUN 04...	--	.00	--	.00	--	.00	--	.00	.00	--	.00	--

06796000 PLATTE RIVER AT NORTH BEND, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	HEPTA-CHLOR, TOTAL (UG/L) (39410)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39413)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE TOTAL (UG/L) (39340)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39343)	MALA-THION, TOTAL (UG/L) (39530)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39531)	METH-OXY-CHLOR, TOTAL (UG/L) (39480)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)	METHYL PARA-THION, TOTAL (UG/L) (39600)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG) (39601)
DEC												
07...	--	.0	--	.0	--	.0	--	.0	--	.0	--	.0
FEB												
07...	--	.0	--	.0	--	.0	--	.0	--	.0	--	.0
MAR												
18...	.00	--	.00	--	.00	--	.00	--	.00	--	.00	--
MAY												
22...	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0	.00	.0
JUN												
04...	.00	--	.00	--	.00	--	.00	--	.00	--	.00	--

DATE	METHYL TRI-THION, TOTAL (UG/L) (39790)	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG) (39791)	PARA-THION, TOTAL (UG/L) (39540)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39541)	TOX-APHENE, TOTAL (UG/L) (39400)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39403)	TOTAL TRI-THION (UG/L) (39786)	TRI-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39787)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	MIREX, TOTAL (UG/L) (39755)	SILVEX, TOTAL (UG/L) (39760)
DEC												
07...	--	.0	--	.0	--	0	--	.0	--	--	--	--
FEB												
07...	--	.0	--	.0	--	0	--	.0	--	--	--	--
MAR												
18...	.00	--	.00	--	0	--	.00	--	.01	.00	.00	.00
MAY												
22...	.00	.0	.00	.0	0	0	.00	.0	.03	.00	.00	.00
JUN												
04...	.00	--	.00	--	0	--	.00	--	.11	.02	.00	.00

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE, WATER (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)
MAR										
18...	1645	7880	8.0	2910	61900	24	35	43	58	96
MAY										
22...	1330	13000	21.0	4050	142000	2	5	10	43	100
JUN										
04...	1130	16200	21.0	1370	59900	73	80	88	94	100

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	NUMBER OF SAM-PLING POINTS (00063)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)
MAR											
18...	1645	7880	4	0	1	25	72	92	95	99	100
MAY											
22...	1330	13000	5	--	0	17	67	88	95	98	100
JUN											
04...	1130	16200	5	--	0	26	78	95	98	100	--

06796978 HOLT CREEK NEAR EMMET, NE

LOCATION.--Lat 42°25'19", long 98°51'46", in SE1/4SW1/4 sec.5, T.28 N., R.13 W., Holt County, Hydrologic Unit 10220001, on left bank 12 ft (4 m) downstream from bridge on county road, 4 mi (6 km) southwest of Emmet.

PERIOD OF RECORD.--October 1978 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,070.12 ft (630.973 m) National Geodetic Vertical Datum of 1929. (Levels by Nebraska Natural Resources Commission.)

REMARKS.--Records good except those for winter period, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 489 ft³/s (13.8 m³/s) Apr. 4, 1980, gage height, 6.20 ft (1.890 m); maximum gage height, 7.61 ft (2.320 m) Feb. 28, 1979, backwater from ice; minimum daily discharge, 0.10 ft³/s (0.003 m³/s) Jan. 24, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 489 ft³/s (13.8 m³/s) Apr. 4, gage height, 6.20 ft (1.890 m); minimum daily, 1.1 ft³/s (0.031 m³/s) Aug. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9	19	7.6	42	9.4	47	87	8.7	10	3.7	1.3	5.0
2	4.8	16	7.2	39	11	43	132	8.1	11	3.3	1.3	5.1
3	4.9	17	7.6	33	12	47	288	7.5	8.7	3.3	1.5	4.8
4	4.7	18	9.0	28	11	50	456	7.1	7.7	3.2	1.7	4.0
5	4.9	20	11	24	13	47	401	5.7	8.3	3.2	1.6	3.9
6	4.9	22	13	23	14	42	234	4.9	7.9	2.7	1.5	3.8
7	5.0	19	15	19	12	38	148	4.4	6.3	2.6	1.3	3.3
8	5.1	20	14	22	14	39	97	4.0	5.3	2.5	1.1	3.2
9	5.2	20	17	28	16	43	67	4.3	6.6	2.3	1.4	2.6
10	5.2	20	20	30	17	46	58	4.3	6.3	2.1	5.0	2.6
11	5.3	19	23	28	18	49	51	4.1	5.3	2.1	3.7	3.2
12	5.3	18	22	25	17	58	43	4.3	4.6	1.9	2.9	2.9
13	5.3	19	26	22	19	67	39	4.3	4.6	2.0	2.3	2.9
14	5.3	18	32	19	21	63	35	4.6	5.7	1.8	2.2	3.2
15	5.3	18	42	16	24	84	32	11	20	1.8	2.6	3.5
16	5.8	18	24	14	23	86	29	17	10	1.6	6.2	3.2
17	5.8	18	26	16	22	81	26	27	7.1	1.6	4.5	3.5
18	6.0	17	30	17	25	73	25	29	6.2	1.6	3.5	3.3
19	7.1	17	32	15	28	54	23	30	5.0	1.7	4.4	3.7
20	7.1	18	33	14	32	41	22	25	4.9	1.8	4.0	3.9
21	6.5	17	35	16	35	34	20	20	4.9	1.7	2.8	4.1
22	7.9	13	33	15	38	30	19	16	7.0	1.6	2.3	4.0
23	7.9	8.0	34	17	39	27	16	14	5.7	1.5	2.2	4.0
24	7.1	9.0	36	20	40	24	15	12	4.5	1.5	2.1	4.0
25	7.1	12	38	16	38	24	13	10	4.9	2.0	2.7	4.0
26	7.1	13	40	13	40	25	11	8.4	6.1	2.1	19	3.8
27	7.3	11	43	12	43	27	12	7.5	5.2	2.1	13	4.0
28	6.8	7.2	42	11	50	30	9.6	6.8	3.9	2.0	8.3	3.5
29	7.1	5.4	43	10	60	32	10	9.7	3.3	1.6	6.4	3.6
30	13	7.0	41	9.4	---	44	9.3	14	4.0	1.4	5.2	3.4
31	22	---	43	9.0	---	59	---	10	---	1.2	4.9	---
TOTAL	207.7	473.6	839.4	622.4	741.4	1454	2427.9	343.7	201.0	65.5	122.9	110.0
MEAN	6.70	15.8	27.1	20.1	25.6	46.9	80.9	11.1	6.70	2.11	3.96	3.67
MAX	22	22	43	42	60	86	456	30	20	3.7	19	5.1
MIN	4.7	5.4	7.2	9.0	9.4	24	9.3	4.0	3.3	1.2	1.1	2.6
AC-FT	412	939	1660	1230	1470	2880	4820	682	399	130	244	218

CAL YR 1979 TOTAL 6850.10 MEAN 18.8 MAX 193 MIN .10 AC-FT 13590
WTR YR 1980 TOTAL 7609.50 MEAN 20.8 MAX 456 MIN 1.1 AC-FT 15090

06796985 ELKHORN RIVER AT EMMET, NE

LOCATION.--Lat 42°28'11", long 98°47'43", NE1/4SE1/4 sec.23, T.29 N., R.13 W., Holt County, Hydrologic Unit 10220001, on right bank 20 ft (6 m) upstream from county road bridge, 0.6 mi (1.0 km) southeast of Emmet.

PERIOD OF RECORD.--October 1979 to September 1980.

GAGE.--Water-stage recorder. Elevation of gage is 2,002 ft (610.2 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Minor diversions for irrigation above station.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 740 ft^3/s (21.0 m^3/s) Apr. 4, gage height, 5.39 ft (1.643 m); no flow Aug. 1-2, 8-9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	62	43	260	54	190	480	64	60	21	.00	7.8
2	19	55	41	230	62	180	561	64	55	19	.00	6.8
3	19	54	43	170	62	190	642	61	52	17	.31	6.0
4	18	56	49	140	60	210	712	58	48	15	3.1	4.6
5	20	58	56	120	66	190	702	55	47	14	1.8	4.4
6	20	61	68	110	70	170	664	51	47	12	.87	5.0
7	20	61	86	80	62	160	624	48	43	12	.03	4.2
8	19	63	78	100	68	170	585	47	41	11	.00	2.5
9	18	63	100	130	76	220	549	47	40	10	.00	1.2
10	20	68	130	140	82	280	516	46	39	9.1	4.6	.47
11	20	66	150	130	84	300	483	51	36	8.0	6.8	.62
12	20	70	140	120	80	331	444	51	34	7.6	3.4	1.5
13	19	69	160	110	88	346	401	62	32	6.8	2.7	1.7
14	20	75	190	100	96	358	355	60	32	6.1	2.1	3.2
15	22	77	240	96	108	385	312	59	44	5.4	2.0	3.2
16	22	81	150	86	100	409	264	63	41	4.8	8.1	3.0
17	22	80	160	94	96	444	228	85	36	4.1	5.4	3.4
18	23	79	180	96	110	435	204	84	34	4.0	4.0	3.4
19	26	77	190	86	120	409	179	78	32	3.8	4.2	3.2
20	25	75	200	82	130	399	159	73	30	3.7	5.7	3.8
21	24	80	210	90	150	385	137	65	29	3.7	7.8	4.0
22	27	50	200	84	165	360	117	59	30	3.3	6.5	3.8
23	28	25	210	94	170	326	100	53	30	2.8	6.0	4.0
24	28	30	220	104	180	298	89	49	28	2.2	4.2	4.4
25	28	40	230	90	170	267	84	45	27	3.2	1.8	4.4
26	27	50	235	74	190	254	80	42	26	3.3	24	4.4
27	27	48	250	64	210	248	78	39	24	2.8	18	4.6
28	27	43	250	60	240	256	74	36	21	2.2	11	4.8
29	27	37	250	56	280	300	70	40	19	1.4	7.9	4.8
30	37	41	240	54	---	324	67	56	20	1.0	7.0	5.0
31	55	---	250	52	---	391	---	56	---	.03	7.3	---
TOTAL	746	1794	4999	3302	3429	9185	9960	1747	1077	220.33	156.61	114.19
MEAN	24.1	59.8	161	107	118	296	332	56.4	35.9	7.11	5.05	3.81
MAX	55	81	250	260	280	444	712	85	60	21	24	7.8
MIN	18	25	41	52	54	160	67	36	19	.03	.00	.47
AC-FT	1480	3560	9920	6550	6800	18220	19760	3470	2140	437	311	226

WTR YR 1980 TOTAL 36730.13 MEAN 100 MAX 712 MIN .00 AC-FT 72850

06797500 ELKHORN RIVER AT EWING, NE

LOCATION.--Lat 42°16'03", long 98°20'11", in NW1/4SW1/4 sec.35, T.27 N., R.9 W., Holt County, Hydrologic Unit 10220001, on right bank 350 ft (107 m) downstream from bridge on State Highway 420, 0.8 mi (1.3 km) north of Ewing, and 1.5 mi (2.4 km) upstream from South Fork Elkhorn River.

DRAINAGE AREA.--1,400 mi^2 (3,630 km^2), approximately, of which about 740 mi^2 (1,920 km^2) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1947 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,836.24 ft (559.686 m), National Geodetic Vertical Datum of 1929, levels by Nebraska Department of Roads (revised). Prior to Oct. 22, 1952, at site 300 ft (90 m) upstream at same datum.

REMARKS.—Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--33 years, 166 ft^3/s (4.701 m^3/s), 120,300 acre-ft/yr (0.148 km^3/yr); median of yearly mean discharges, 115 ft^3/s (3.257 m^3/s), 83,300 acre-ft/yr (0.103 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,500 ft^3/s (212 m^3/s) June 10, 1962, gage height, 10.60 ft (3.231 m); minimum daily, 5.2 ft^3/s (0.15 m^3/s) Sept. 6, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 11.32 ft (3.450 m) June 23, 24, 1947, from floodmark at site 300 ft (90 m) upstream, discharge, 6,600 ft^3/s (187 m^3/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft^3/s (14.2 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 19	0900	509	14.4	5.37	1.637
Aug. 6	1100	*2140	60.6	7.85	2.393

Minimum daily discharge, 7.6 ft^3/s (0.22 m^3/s) Aug. 1, 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	109	74	220	100	268	450	119	91	42	7.6	26
2	30	110	70	200	110	232	526	115	92	42	8.1	24
3	30	108	78	180	105	266	821	111	91	42	7.6	22
4	30	103	82	160	105	296	1060	109	88	40	21	21
5	32	108	100	170	120	230	1600	104	83	41	14	20
6	32	112	120	130	110	250	2100	100	79	39	12	17
7	32	113	150	100	100	222	1920	96	77	37	9.6	16
8	34	115	130	104	110	234	1660	94	74	34	8.7	14
9	34	114	150	110	120	234	1380	92	71	32	9.5	12
10	34	113	160	130	130	263	1110	90	70	32	13	12
11	36	115	180	124	125	282	935	92	67	30	11	11
12	36	114	170	135	120	302	715	93	63	28	12	11
13	36	112	190	140	130	291	542	100	63	25	14	11
14	40	111	210	150	140	299	453	104	61	21	13	11
15	40	110	190	145	150	318	387	111	63	19	14	11
16	43	110	170	155	140	355	338	108	66	17	17	10
17	43	110	160	165	135	409	298	123	70	16	17	10
18	44	112	190	170	150	454	262	128	71	15	16	10
19	49	113	210	160	170	502	232	129	70	15	17	10
20	54	114	250	170	180	468	220	117	69	14	17	9.5
21	52	120	260	180	200	416	199	114	66	13	16	11
22	56	57	260	170	220	397	183	104	64	13	14	10
23	56	70	250	160	220	358	158	100	63	11	13	11
24	59	80	230	160	230	321	154	96	64	10	11	13
25	56	80	301	150	241	302	148	91	63	13	8.6	11
26	58	76	311	140	295	288	142	88	59	14	13	11
27	59	74	320	130	318	280	137	86	56	12	21	11
28	58	70	300	130	392	285	131	85	50	11	21	12
29	57	70	290	110	415	321	126	80	46	9.5	23	12
30	68	80	270	100	---	355	123	82	42	8.6	25	11
31	93	---	250	90	---	437	---	88	---	8.1	28	---
TOTAL	1413	3003	6076	4538	5081	9935	18510	3149	2052	704.2	452.7	401.5
MEAN	45.6	100	196	146	175	320	617	102	68.4	22.7	14.6	13.4
MAX	93	120	320	220	415	502	2100	129	92	42	28	26
MIN	30	57	70	90	100	222	123	80	42	8.1	7.6	9.5
AC-FT	2800	5960	12050	9000	10080	19710	36710	6250	4070	1400	898	796

CAL YR 1979 TOTAL 50008.0 MEAN 137 MAX 712 MIN 25 AC-FT 99190
WTR YR 1980 TOTAL 55315.4 MEAN 151 MAX 2100 MIN 7.6 AC-FT 109700

06797500 ELKHORN RIVER AT EWING, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960-66, 1974-80.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	TEMPER-ATURE, WATER (DEG C) (00010)
OCT 25...	1000	52	195	7.5
NOV 13...	1140	110	197	9.0
DEC 04...	1200	82	210	1.5
JAN 21...	1420	179	204	1.5
FEB 04...	1050	104	212	.0
MAR 17...	1210	389	212	6.0
APR 09...	1010	1370	318	7.0
MAY 20...	1250	117	220	21.5
JUN 06...	1215	79	210	--
JUL 22...	1235	12	238	29.0
AUG 11...	1255	12	195	28.0
SEP 22...	1310	10	208	20.0

06798000 SOUTH FORK ELKHORN RIVER NEAR EWING, NE

LOCATION.--Lat 42°14'29", long 98°23'53", in SE1/4NE1/4 sec.7, T.26 N., R.9 W., Holt County, Hydrologic Unit 10220001, on right bank 17 ft (5 m) (revised) downstream from bridge on county highway, 2.9 mi (4.7 km) southwest of intersection with U.S. Highway 275 in Ewing and 5.5 mi (8.8 km) upstream from mouth.

PERIOD OF RECORD.--July 1947 to September 1953, August 1960 to September 1972, October 1977 to current year. Prior to October 1977 station published as "at Ewing" at sites 4.5 mi (7.2 km) downstream at different datum.

GAGE.--Water-stage recorder. Altitude of gage is 1,880 ft (573 m) from topographic map. See WSP 1918 for history of changes prior to June 14, 1963.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--21 years (water years 1948-53, 1961-72, 1978-80) 64.5 ft³/s (1.827 m³/s), 46,730 acre-ft/yr (57.6 hm³/yr); median of yearly mean discharges, 50 ft³/s (1.416 m³/s), 36,200 acre-ft/yr (44.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,760 ft³/s (49.8 m³/s) Apr. 5, 1949, gage height, 5.02 ft (1.530 m); maximum gage height, 6.12 ft (1.865 m) Mar. 7, 1949, backwater from ice, site then in use; minimum daily discharge, 11 ft³/s (0.31 m³/s) Jan. 15, 1953.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 21, 1947, reached a stage of 7.22 ft (2.201 m), from floodmarks at site and datum then in use; discharge, about 3,400 ft³/s (96.3 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 467 ft³/s (13.2 m³/s) Apr. 5 at 1400, gage height, 2.53 ft (0.771 m), no other peak above base of 200 ft³/s (5.66 m³/s) minimum daily, 20 ft³/s (0.57 m³/s) July 27-31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	47	39	62	35	58	124	44	38	33	24	31
2	31	47	40	62	40	70	176	44	38	33	26	28
3	31	47	42	69	45	62	278	45	35	31	27	26
4	31	43	44	78	49	60	354	43	36	31	34	26
5	41	43	49	54	60	56	424	41	37	32	27	28
6	38	47	47	47	52	64	382	40	36	33	26	28
7	38	47	44	45	50	70	276	37	33	34	24	29
8	38	50	48	41	48	65	172	36	34	33	24	27
9	38	50	58	43	45	67	127	39	35	33	26	25
10	38	45	70	60	50	68	100	37	37	33	31	26
11	34	45	64	56	48	71	86	32	37	31	27	29
12	31	45	60	62	52	70	80	35	37	28	28	31
13	31	45	70	68	54	71	75	40	35	28	27	28
14	31	48	80	64	56	71	70	50	33	27	26	30
15	28	41	84	60	52	74	74	48	79	26	26	31
16	28	47	60	52	50	73	76	46	49	27	33	29
17	26	50	48	56	50	72	77	48	42	27	28	30
18	30	50	60	54	60	72	71	47	40	27	28	31
19	31	52	68	50	64	70	68	51	37	24	28	31
20	31	54	65	50	67	65	66	52	37	23	24	31
21	31	56	75	48	73	62	76	50	37	23	24	32
22	31	44	75	43	80	62	63	48	37	24	26	28
23	33	37	69	50	78	54	56	45	37	23	24	29
24	33	45	60	43	76	53	48	44	34	21	26	31
25	33	48	67	39	74	51	45	41	34	21	27	30
26	36	46	65	36	80	55	41	38	33	21	31	30
27	36	44	69	35	69	54	45	41	29	20	34	32
28	37	40	65	36	58	58	46	38	30	20	33	31
29	38	39	52	37	56	69	45	35	30	20	33	30
30	45	40	56	35	---	88	44	38	31	20	31	28
31	58	---	60	30	---	103	---	38	---	20	31	---
TOTAL	1067	1382	1853	1565	1671	2058	3665	1311	1117	827	864	876
MEAN	34.4	46.1	59.8	50.5	57.6	66.4	122	42.3	37.2	26.7	27.9	29.2
MAX	58	56	84	78	80	103	424	52	79	34	34	32
MIN	26	37	39	30	35	51	41	32	29	20	24	25
AC-FT	2120	2740	3680	3100	3310	4080	7270	2600	2220	1640	1710	1740

CAL YR 1979 TOTAL 17721 MEAN 48.6 MAX 179 MIN 20 AC-FT 35150
WTR YR 1980 TOTAL 18256 MEAN 49.9 MAX 424 MIN 20 AC-FT 36210

06798300 CLEARWATER CREEK NR CLEARWATER, NE

LOCATION.--Lat 42°08'20", long 98°12'10", in SW1/4NW1/4 sec.13, T.25 N., R.8 W., Antelope County, Hydrologic Unit 10220001, on left bank at downstream side of county road bridge, 0.5 mi (0.8 km) west and 2 mi (3 km) south of Clearwater, and about 3 mi (5 km) upstream from mouth.

DRAINAGE AREA.--210 mi² (540 km²), approximately, of which about 130 mi² (340 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--July 1961 to September 1964, October 1977 to current year.

GAGE.--Water-stage recorder. Prior to Sept. 7, 1961, wire-weight gage at same site and datum.

REMARKS.--Records fair except those for winter period, which are poor.

AVERAGE DISCHARGE.--6 years (water years 1962-64, 1978-80), 33.1 ft³/s (0.937 m³/s), 23,980 acre-ft/yr (29.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 710 ft³/s (20.1 m³/s) Mar. 27, 1962, gage height, 8.82 ft (2.688 m); minimum daily discharge, 4.4 ft³/s (0.12 m³/s) Aug. 8, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 186 ft³/s (5.27 m³/s) Apr. 4 at 2230, gage height, 6.19 ft (1.887 m), no other peak above base of 100 ft³/s (2.83 m³/s); minimum daily, 4.4 ft³/s (0.12 m³/s) Aug. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	36	22	29	22	27	138	22	24	12	5.0	16
2	17	28	31	29	23	30	112	22	23	12	5.2	15
3	17	26	30	31	24	28	122	21	23	12	5.7	14
4	18	25	25	35	26	29	163	21	23	12	7.0	14
5	18	29	29	32	28	30	155	21	23	12	6.4	13
6	19	30	31	27	27	35	110	20	22	11	6.8	14
7	19	28	38	25	26	32	84	20	20	10	5.2	13
8	19	26	46	23	25	31	66	20	20	9.4	4.4	12
9	19	25	46	22	23	33	53	20	19	8.6	5.2	12
10	19	24	41	25	25	34	46	21	19	8.2	6.4	13
11	19	25	37	27	23	36	42	20	19	8.0	9.7	14
12	19	24	30	28	27	35	37	21	18	7.6	8.5	14
13	20	24	25	30	30	34	34	24	18	7.0	8.9	12
14	20	22	27	31	26	36	31	25	18	6.1	9.3	13
15	20	21	25	29	25	40	30	31	19	5.4	8.9	13
16	20	21	20	28	24	39	28	29	18	5.1	19	12
17	19	21	22	27	24	38	29	37	18	4.9	17	14
18	20	21	25	26	26	37	27	34	18	5.0	13	14
19	21	20	34	26	29	37	28	31	17	5.2	14	14
20	21	21	33	26	33	34	27	29	18	5.0	12	18
21	20	27	30	26	37	33	26	26	17	5.4	10	20
22	23	24	29	25	40	32	24	24	18	5.4	11	17
23	23	22	31	27	38	31	24	23	18	5.4	10	16
24	22	24	32	26	36	32	24	23	17	5.0	10	16
25	22	25	31	25	34	31	23	23	16	6.0	9.7	15
26	22	24	30	25	39	32	23	23	16	6.4	9.7	15
27	21	23	30	23	38	34	23	23	14	6.2	12	15
28	21	20	29	22	36	42	22	22	13	6.0	12	15
29	21	18	30	23	35	68	22	22	12	5.7	12	15
30	29	24	30	22	---	88	22	23	13	4.8	12	14
31	45	---	30	20	---	110	---	24	---	4.8	17	---
TOTAL	650	728	949	820	849	1208	1595	745	551	227.6	303.0	432
MEAN	21.0	24.3	30.6	26.5	29.3	39.0	53.2	24.0	18.4	7.34	9.77	14.4
MAX	45	36	46	35	40	110	163	37	24	12	19	20
MIN	17	18	20	20	22	27	22	20	12	4.8	4.4	12
AC-FT	1290	1440	1880	1630	1680	2400	3160	1480	1090	451	601	857

CAL YR 1979 TOTAL 11622.0 MEAN 31.8 MAX 224 MIN 15 AC-FT 23050
WTR YR 1980 TOTAL 9057.6 MEAN 24.7 MAX 163 MIN 4.4 AC-FT 17970

06798500 ELKHORN RIVER AT NELIGH, NE

LOCATION.--Lat 42°07'20", long 98°01'40", in sec.20, T.25 N., R.6 W., Antelope County, Hydrologic Unit 10220001, on right bank 30 ft (9 m) downstream from bridge on old State Highway 14 at Neligh.

DRAINAGE AREA.--2,200 mi² (5,700 km²), approximately, of which about 1,200 mi² (3,110 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1930 to September 1958, August 1960 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1006: 1935, 1942. WSP 1390: 1931-32, 1937(M). WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,714.00 ft (522.427 m) (revised) National Geodetic Vertical Datum of 1929. Prior to Apr. 16, 1933, nonrecording gage at site 10 ft (3 m) downstream at present datum. Apr. 16, 1933, to Jan. 23, 1939, nonrecording gage at bridge 30 ft (9 m) upstream at present datum. Jan. 24, 1939 to Oct. 9, 1958 and Aug. 8, 1960 to Sept. 8, 1970 water-stage recorder at site 20 ft (6 m) upstream at present datum.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--48 years, 279 ft³/s (7.901 m³/s), 202,100 acre-ft/yr (0.249 km³/yr); median of yearly mean discharges, 231 ft³/s (6.542 m³/s), 167,400 acre-ft/yr (0.206 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 12,000 ft³/s (340 m³/s) June 23, 1947, gage height, 12.53 ft (3.819 m), from main channel rating curve extended above 4,900 ft³/s (139 m³/s) and field estimate of flow through break in highway fill; minimum daily, 12 ft³/s (0.34 m³/s) July 2, 1932.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 29, 1960, reached a stage of 12.24 ft (3.731 m), from floodmark, discharge, 12,300 ft³/s (348 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,960 ft³/s (83.8 m³/s) Apr. 6 at 1900, gage height, 7.26 ft (2.213 m), no other peak above base of 1,000 ft³/s (28.3 m³/s); minimum daily, 28 ft³/s (0.79 m³/s) Aug. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	114	282	160	330	190	450	1080	210	186	96	29	101
2	104	268	180	290	200	500	1070	200	185	90	29	85
3	90	247	200	260	190	540	1400	194	175	90	28	76
4	88	238	220	230	210	400	1640	194	161	92	37	66
5	90	255	240	200	200	270	1980	183	164	90	51	61
6	90	269	245	170	200	350	2650	174	168	80	39	61
7	91	256	250	160	190	450	2540	163	167	71	34	57
8	97	248	260	150	200	470	2000	156	156	62	29	49
9	99	238	300	150	220	473	1600	164	151	54	31	45
10	103	228	330	160	240	499	1300	168	146	53	39	42
11	107	233	300	170	230	547	1100	169	141	49	51	45
12	106	233	290	180	250	552	900	182	134	46	46	47
13	107	238	310	196	260	575	750	213	129	44	35	48
14	109	240	350	210	250	575	620	227	127	42	45	47
15	112	237	310	220	230	615	550	273	221	40	45	50
16	113	239	200	230	210	664	500	258	199	39	84	47
17	112	247	250	250	200	708	439	305	172	39	92	47
18	117	255	350	260	250	768	445	304	172	36	71	49
19	126	259	400	270	280	814	419	281	159	37	72	49
20	130	258	440	280	300	808	391	264	146	39	66	80
21	128	301	450	290	340	707	365	238	151	38	53	79
22	128	251	499	310	390	700	346	217	153	35	48	65
23	131	202	504	330	420	655	311	201	161	35	45	61
24	131	180	444	350	400	564	291	186	151	34	43	58
25	130	165	424	300	370	513	278	182	153	44	37	57
26	127	170	483	280	420	507	267	178	141	49	39	56
27	126	195	493	250	500	488	258	180	124	48	69	57
28	122	170	470	260	600	515	234	172	112	44	72	59
29	128	160	430	240	500	691	223	172	100	36	65	60
30	174	165	400	220	---	750	214	180	100	31	63	60
31	275	---	350	210	---	917	---	180	---	30	82	---
TOTAL	3705	6927	10532	7406	8440	18035	26161	6368	4605	1613	1579	1764
MEAN	120	231	340	239	291	582	872	205	154	52.0	50.9	58.8
MAX	275	301	504	350	600	917	2650	305	221	96	92	101
MIN	88	160	160	150	190	270	214	156	100	30	28	42
AC-FT	7350	13740	20890	14690	16740	35770	51890	12630	9130	3200	3130	3500

CAL YR 1979 TOTAL 98511 MEAN 270 MAX 1430 MIN 60 AC-FT 195400
WTR YR 1980 TOTAL 97135 MEAN 265 MAX 2650 MIN 28 AC-FT 192700

06798500 ELKHORN RIVER AT NELIGH, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974-80.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	TEMPER-ATURE, WATER (DEG C) (00010)
OCT 25...	1530	132	234	13.0
NOV 14...	1335	240	234	7.0
DEC 05...	1045	236	237	1.5
JAN 21...	1235	293	235	1.5
FEB 04...	1420	203	248	.0
MAR 17...	1545	--	229	--
APR 25...	1055	281	298	15.0
MAY 21...	1035	238	245	20.0
JUN 06...	1500	171	239	30.0
JUL 22...	1420	34	281	31.0
AUG 11...	1525	56	219	31.0
SEP 22...	1505	67	259	22.0

06799000 ELKHORN RIVER AT NORFOLK, NE

LOCATION.--Lat 42°00'14", long 97°25'31", in SW1/4SW1/4 sec.34, T.24 N., R.1 W., Madison County, Hydrologic Unit 10220001, on left bank 200 ft (61 m) downstream from U.S. Highway 81 bridge, 1 mi (2 km) south of intersection of U.S. Highways 81 and 275, and 3.6 mi (5.8 km) upstream from North Fork Elkhorn River.

DRAINAGE AREA.--2,790 mi² (7,230 km²), approximately, of which about 1,790 mi² (4,640 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1896 to November 1903 (no winter records), October 1945 to current year. Gage height records collected at site 200 ft (60 m) upstream from May 10, 1941 to Sept. 26, 1945 are contained in reports of U.S. Weather Bureau. Published as "near Norfolk" from October 1957 to September 1977.

REVISED RECORDS.--WSP 1390: 1898-1900. WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,504.95 ft (458.709 m) National Geodetic Vertical Datum of 1929. See WSP 1918 for history of changes prior to Aug. 30, 1958. Aug. 30, 1958 to July 27, 1978, water-stage recorder at site 3.2 mi (5.1 km) upstream at datum 17.88 ft (5.450 m) higher.

REMARKS.--Records fair except those for winter period, which are poor.

AVERAGE DISCHARGE.--35 years, 486 ft³/s (13.76 m³/s), 352,100 acre-ft/yr (0.434 km³/yr); median of yearly mean discharges, 403 ft³/s (11.41 m³/s), 292,000 acre-ft/yr (0.360 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,900 ft³/s (479 m³/s) June 14, 1967, gage height, 8.52 ft (2.597 m), site and datum then in use; maximum gage height observed, 13.63 ft (4.154 m) Mar. 11, 1949, at site 200 ft (60 m) upstream at present datum, backwater from ice; minimum daily discharge, 33 ft³/s (0.93 m³/s) Aug. 3, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 13, 1944, reached a stage of 11.8 ft (3.60 m), at site 200 ft (60 m) upstream at present datum, discharge, 14,300 ft³/s (405 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft³/s (56.6 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr 7	1100	*2960	83.8	4.74	1.445
May 27	1100	2690	76.2	4.61	1.405

Minimum daily discharge, 33 ft³/s (0.93 m³/s) Aug. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	153	447	250	360	300	560	1160	400	296	182	42	128
2	148	434	330	350	300	580	1200	390	287	176	42	138
3	148	405	350	360	310	570	1480	385	278	175	33	145
4	144	404	400	340	320	565	1870	380	252	192	72	128
5	143	420	433	300	330	560	1950	375	236	178	69	113
6	148	462	436	230	300	580	2530	360	231	175	56	113
7	154	454	470	190	270	600	2880	350	226	165	70	110
8	158	418	476	185	250	640	2570	330	203	136	54	110
9	156	408	467	180	240	640	1660	315	190	130	54	98
10	159	375	250	200	250	640	1260	300	190	114	56	87
11	175	356	400	230	270	620	970	291	193	105	72	87
12	172	355	400	270	290	598	810	278	195	99	68	98
13	168	359	340	310	340	680	720	307	220	98	93	93
14	175	354	370	320	430	689	623	317	188	91	93	90
15	188	362	390	350	410	753	569	338	279	84	85	98
16	197	396	250	340	360	809	560	370	292	75	125	90
17	202	407	160	380	330	847	596	388	252	72	160	82
18	217	404	200	420	340	928	569	386	252	76	163	80
19	244	401	350	430	360	1020	569	389	752	66	160	77
20	259	381	630	440	390	1020	578	384	248	64	138	125
21	234	418	736	450	450	939	614	351	214	62	125	107
22	211	443	644	440	500	916	605	345	233	55	122	132
23	217	385	658	450	520	901	560	327	221	51	98	113
24	226	301	636	460	540	891	542	315	208	50	82	90
25	239	326	544	400	580	812	515	315	216	51	77	82
26	248	365	516	360	600	763	485	310	228	58	84	77
27	267	364	527	330	640	699	465	998	227	56	94	74
28	271	270	489	320	610	664	445	882	212	66	90	74
29	273	170	484	310	600	826	420	602	192	69	110	74
30	320	190	440	310	---	978	410	342	183	58	116	72
31	434	---	380	300	---	893	---	291	---	42	113	---
TOTAL	6448	11234	13406	10315	11430	23181	30185	12111	7394	3071	2816	2985
MEAN	208	374	432	333	394	748	1006	391	246	99.1	90.8	99.5
MAX	434	462	736	460	640	1020	2880	998	752	192	163	145
MIN	143	170	160	180	240	560	410	278	183	42	33	72
AC-FT	12790	22280	26590	20460	22670	45980	59870	24020	14670	6090	5590	5920

CAL YR 1979 TOTAL 155796 MEAN 427 MAX 2900 MIN 135 AC-FT 309000
WTR YR 1980 TOTAL 134576 MEAN 368 MAX 2880 MIN 33 AC-FT 266900

06799000 ELKHORN RIVER NEAR NORFOLK, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960-69, 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT										
23...	1415	180	295	7.8	9.4	15	11.3	1.0	170	250
NOV										
07...	1545	452	287	8.0	5.0	25	13.8	3.6	1030	1100
DEC										
19...	1740	628	360	7.7	.0	25	12.9	5.4	770	380
JAN										
22...	1045	451	303	7.9	.0	15	14.8	3.0	340	150
31...	1600	320	331	7.8	.5	15	13.5	--	87	K35
MAR										
12...	1645	609	265	7.8	1.0	55	12.0	4.2	230	230
APR										
24...	0945	535	368	8.1	12.0	15	10.6	5.6	730	160
MAY										
20...	1030	381	300	8.0	15.0	--	10.0	4.5	K190	130
JUN										
04...	1545	285	310	8.4	23.0	40	9.7	6.4	870	K320
JUL										
17...	1830	74	360	8.6	29.5	10	7.4	8.0	220	160
AUG										
28...	1645	90	334	8.8	29.5	10	8.3	4.9	220	170

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT										
23...	3.2	226	.31	110	.48	.02	.69	.71	1.2	.210
NOV										
07...	3.3	186	.25	227	.87	.15	.75	.90	1.8	.250
DEC										
19...	4.8	248	.34	421	.48	.20	1.6	1.8	2.3	.230
JAN										
22...	4.8	224	.30	273	.71	.15	.63	.78	1.5	.240
31...	4.3	240	.33	207	.87	.23	.22	.45	1.3	.210
MAR										
12...	3.9	212	.29	349	.56	.13	.97	1.1	1.7	.330
APR										
24...	6.9	271	.37	391	.22	.46	1.9	2.4	2.6	.240
MAY										
20...	3.2	209	.28	215	.40	.11	.99	1.1	1.5	.280
JUN										
04...	2.8	207	.28	159	.05	.01	1.6	1.6	1.7	.360
JUL										
17...	--	266	.36	53.1	.00	.00	1.6	1.6	1.6	.350
AUG										
28...	3.8	242	.33	59.1	.03	.00	.88	.88	.91	.600

06799000 ELKHORN RIVER NEAR NORFOLK, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLOR (PLAT-INUM COBALT UNITS) (00080)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
NOV 07...	1545	20	130	0	41	6.6	9.0	.3	7.6	130	11
JAN 31...	1600	10	150	0	48	7.7	13	.5	7.5	170	11
MAY 20...	1030	25	140	0	43	7.0	10	.4	6.8	140	8.3
AUG 28...	1645	5	160	0	50	7.9	9.9	.3	7.6	180	8.3

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)
NOV 07...	.3	38	198	.77	.210	--	--	40	--	--
JAN 31...	.3	48	246	.87	.160	--	--	40	--	--
MAY 20...	.4	39	204	.39	--	6	200	30	1	0
AUG 28...	.3	40	236	.00	.220	--	--	50	--	--

DATE	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG) (71895)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV 07...	--	50	--	30	--	--	--	--	--	--
JAN 31...	--	220	--	40	--	--	--	--	--	--
MAY 20...	2	40	1	20	.4	.1	.3	1	0	190
AUG 28...	--	10	--	20	--	--	--	--	--	--

06799080 WILLOW CREEK NEAR FOSTER, NE

LOCATION.--Lat 42°10'38", long 97°40'02" in NE1/4NE1/4 sec.4, T.25 N., R.3 W., Pierce County, Hydrologic Unit 10220002, on left downstream bank at county road bridge, 6.8 mi (10.9 km) south of Foster and 7.2 mi (11.6 km) southwest of Pierce.

DRAINAGE AREA.--137 mi² (355 km²).

PERIOD OF RECORD.--October 1975 (monthly discharge only) to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,650 ft (503 m) from topographic map.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--5 years, 8.76 ft³/s (0.248 m³/s), 6,350 acre-ft/yr (7.83 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 275 ft³/s (7.79 m³/s) Mar. 23, 1979, gage height, 7.62 ft (2.323 m), backwater from ice; maximum gage height, 8.21 ft (2.502 m) Mar. 19, 1978, from high-water mark, backwater from ice; minimum daily discharge, 2.1 ft³/s (0.059 m³/s) Aug. 28, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 141 ft³/s (3.99 m³/s) Apr. 5, gage height, 5.41 ft (1.649 m); minimum daily, 2.1 ft³/s (0.059 m³/s) Aug. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	8.7	2.3	8.0	7.0	8.0	54	7.1	12	5.4	3.1	3.8
2	4.2	7.5	3.5	8.8	8.0	9.0	41	7.4	11	5.2	2.9	4.0
3	4.2	6.7	8.0	9.6	7.8	10	54	7.2	11	6.2	2.7	4.0
4	4.1	6.3	9.0	9.0	8.2	13	103	7.0	9.7	6.2	3.0	3.5
5	4.3	7.0	10	8.0	9.0	11	118	6.9	9.5	5.7	3.3	3.2
6	4.1	8.3	11	4.0	8.4	14	54	6.7	9.3	5.5	3.6	3.2
7	4.3	7.3	12	3.6	8.2	9.5	34	6.2	8.3	5.3	3.2	3.2
8	4.3	7.3	10	3.5	8.0	10	25	6.6	7.5	4.7	2.7	3.0
9	4.0	6.9	12	4.5	7.4	9.6	22	6.9	7.2	3.2	2.9	2.5
10	4.2	6.8	14	6.0	8.9	9.7	19	7.1	6.8	4.0	3.8	2.7
11	4.4	6.9	13	10	8.4	9.6	17	6.6	6.3	4.5	3.9	2.9
12	4.0	7.0	12	12	7.4	9.0	15	7.3	5.8	4.3	3.8	3.1
13	3.9	6.6	11	25	8.8	9.1	14	9.1	7.2	4.4	3.8	2.9
14	4.2	6.8	10	30	8.4	9.4	13	9.7	6.7	4.3	3.8	3.2
15	4.4	6.8	9.0	26	7.8	10	12	14	6.8	4.0	3.7	3.6
16	4.5	6.7	8.0	21	7.6	11	12	11	6.5	3.7	4.8	3.3
17	4.4	6.8	9.0	19	7.0	11	11	14	6.3	3.5	5.6	3.2
18	6.6	6.7	15	14	10	10	11	14	7.8	3.4	4.8	3.2
19	6.3	6.4	10	10	15	10	10	14	12	3.3	4.1	3.2
20	5.4	6.4	8.6	8.8	17	10	9.8	13	8.7	3.2	3.2	3.6
21	4.6	8.9	8.2	9.0	17	10	9.2	11	8.0	3.2	3.6	4.8
22	4.6	5.0	8.0	8.6	16	10	8.6	10	8.1	3.1	3.4	4.4
23	4.6	3.0	8.2	8.0	15	9.9	7.9	9.5	8.6	3.1	3.3	4.2
24	4.7	2.5	8.4	8.2	12	10	7.3	8.9	7.5	3.0	3.1	3.8
25	4.6	2.5	8.2	7.0	10	10	7.5	8.6	7.1	3.2	2.9	3.6
26	4.6	3.0	10	6.6	11	10	7.3	8.8	6.1	4.0	7.9	3.6
27	4.5	2.5	9.8	6.8	10	11	7.6	31	5.5	4.1	3.0	3.6
28	4.5	2.2	9.6	7.0	9.0	13	7.4	13	5.5	3.8	2.1	3.6
29	4.6	2.4	9.2	6.8	10	20	7.3	13	5.3	3.5	2.7	3.6
30	6.9	2.5	9.4	6.6	---	30	7.0	12	5.6	3.4	2.8	3.5
31	12	---	9.0	6.0	---	45	---	12	---	3.2	3.3	---
TOTAL	150.4	174.4	295.4	321.4	288.3	381.8	725.9	319.6	233.7	127.6	110.8	104.0
MEAN	4.85	5.81	9.53	10.4	9.94	12.3	24.2	10.3	7.79	4.12	3.57	3.47
MAX	12	8.9	15	30	17	45	118	31	12	6.2	7.9	4.8
MIN	3.9	2.2	2.3	3.5	7.0	8.0	7.0	6.2	5.3	3.0	2.1	2.5
AC-FT	298	346	586	637	572	757	1440	634	464	253	220	206

CAL YR 1979 TOTAL 3942.7 MEAN 10.8 MAX 230 MIN 2.2 AC-FT 7820
WTR YR 1980 TOTAL 3233.3 MEAN 8.83 MAX 118 MIN 2.1 AC-FT 6410

06799100 NORTH FORK ELKHORN RIVER NEAR PIERCE, NE

LOCATION.--Lat 42°10'44", long 97°29'04", in SW1/4 sec.31, T.26 N., R.1 W., Pierce County, Hydrologic Unit 10220002, on left downstream wingwall of county road bridge, 2.5 mi (4.0 km) southeast of Pierce.

DRAINAGE AREA.--700 mi^2 (1,810 km^2), approximately, of which about 30 mi^2 (78 km^2) is noncontributing.

PERIOD OF RECORD.--August 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,553.07 ft (473.376 m) National Geodetic Vertical Datum of 1929 (U.S. Weather Bureau levels).

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--20 years, 79.2 ft^3/s (2.243 m^3/s), 57,380 acre-ft/yr (70.7 hm^3/yr); median of yearly mean discharges, 64 ft^3/s (1.812 m^3/s), 46,400 acre-ft/yr (57.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,200 ft^3/s (430 m^3/s) Feb. 19, 1971, gage height, 15.10 ft (4.602 m); minimum daily, 3.8 ft^3/s (0.11 m^3/s) July 24, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,780 ft^3/s (277 m^3/s) May 27 at 0800, gage height, 14.63 ft (4.459 m), no other peak above base of 870 ft^3/s (24.6 m^3/s); minimum daily, 5.6 ft^3/s (0.16 m^3/s) July 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	94	43	47	37	139	145	50	75	29	7.3	13
2	24	57	47	40	38	88	143	49	70	27	7.6	14
3	25	50	52	42	38	76	167	50	63	26	9.4	13
4	24	43	54	45	40	57	360	50	59	25	13	12
5	25	48	58	40	42	71	394	49	57	23	12	12
6	25	53	58	35	43	68	250	47	66	20	10	12
7	25	50	61	41	43	66	166	42	52	18	8.5	12
8	25	49	104	44	43	63	126	41	49	16	8.5	11
9	25	47	105	42	41	58	112	41	45	15	9.3	11
10	26	45	60	42	43	63	107	41	42	12	10	12
11	27	40	77	41	42	60	96	40	51	11	12	12
12	27	38	73	43	43	62	89	41	48	11	12	13
13	27	36	75	46	45	64	82	44	47	12	13	13
14	27	36	55	45	47	61	78	44	48	11	12	11
15	28	36	47	50	45	66	75	52	50	11	12	12
16	28	36	36	53	40	77	78	54	48	11	16	13
17	28	36	44	47	44	76	78	57	46	11	15	14
18	34	36	42	41	48	68	69	64	47	11	14	14
19	50	35	49	44	52	70	64	65	56	11	14	14
20	38	34	53	56	56	69	63	58	53	12	13	14
21	32	46	53	40	58	66	61	52	41	11	9.8	17
22	33	41	49	42	52	64	58	47	50	11	9.8	17
23	35	30	47	56	90	64	55	46	50	8.5	11	16
24	33	32	50	35	135	64	55	42	48	6.8	12	16
25	33	36	49	47	179	63	53	41	45	6.8	11	15
26	34	34	46	60	137	64	53	41	42	11	11	16
27	34	33	48	50	115	67	52	4170	37	12	13	16
28	35	45	47	36	108	72	52	460	33	11	12	19
29	35	47	47	34	128	92	52	143	31	8.3	11	18
30	48	40	46	36	---	128	50	118	30	8.6	10	16
31	100	---	46	37	---	135	---	95	---	5.6	11	---
TOTAL	1015	1283	1721	1357	1872	2301	3283	6234	1479	423.6	350.2	418
MEAN	32.7	42.8	55.5	43.8	64.6	74.2	109	201	49.3	13.7	11.3	13.9
MAX	100	94	105	60	179	139	394	4170	75	29	16	19
MIN	24	30	36	34	37	57	50	40	30	5.6	7.3	11
AC-FT	2010	2540	3410	2690	3710	4560	6510	12370	2930	840	695	829

CAL YR 1979 TOTAL 23655.0 MEAN 64.8 MAX 1160 MIN 19 AC-FT 46920
WTR YR 1980 TOTAL 21736.8 MEAN 59.4 MAX 4170 MIN 5.6 AC-FT 43110

06799230 UNION CREEK AT MADISON, NE

LOCATION.--Lat 41°49'52", long 97°27'19", in SW1/4SE1/4 sec.32, T.22 N., R.1 W., Madison County, Hydrologic Unit 10220003, on left bank 12 ft (4 m) downstream from bridge on U.S. Highway 81, in Madison.

PERIOD OF RECORD.--October 1978 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,549.70 ft (472.349 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,100 ft³/s (31.2 m³/s) June 12, 1980, gage height, 14.64 ft (4.462 m); minimum daily, 3.6 ft³/s (0.10 m³/s) July 30, 31, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,100 ft³/s (31.2 m³/s) June 12, gage height, 14.64 ft (4.462 m); minimum daily, 3.6 ft³/s (0.10 m³/s) July 30, 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.3	21	16	14	13	22	25	14	12	12	4.0	9.1
2	9.3	19	16	13	14	19	26	14	12	11	3.8	11
3	9.8	18	17	13	14	20	41	14	12	12	4.4	8.7
4	9.6	16	18	13	15	20	39	14	12	12	6.1	8.2
5	9.9	24	20	13	15	18	27	13	12	20	4.1	8.0
6	10	22	19	12	15	18	24	13	15	11	3.7	7.9
7	10	18	19	12	16	19	21	12	13	10	5.4	7.9
8	10	18	17	11	16	20	19	12	11	9.5	4.2	8.2
9	10	18	18	11	16	24	18	13	11	9.4	4.1	8.3
10	10	16	18	13	16	26	18	12	11	9.5	5.8	7.6
11	10	16	14	13	16	31	17	12	11	8.3	7.1	7.8
12	10	16	15	12	16	25	16	13	339	6.6	5.9	8.2
13	9.9	16	16	14	16	21	16	13	88	7.5	5.7	9.0
14	11	16	16	16	16	20	16	13	16	6.6	4.8	8.4
15	11	17	17	16	17	21	16	13	15	5.9	6.3	7.6
16	11	16	13	19	17	21	16	15	13	5.0	146	7.3
17	11	16	14	19	17	19	16	18	13	5.5	24	8.6
18	13	16	15	17	18	18	18	16	74	4.7	17	7.7
19	16	16	16	17	19	18	18	15	88	5.0	16	7.7
20	12	18	17	16	25	17	18	14	22	5.4	9.4	7.9
21	12	26	17	16	62	16	18	13	16	5.0	8.0	8.6
22	12	23	16	16	148	16	18	13	110	4.8	7.5	7.7
23	12	21	18	15	122	16	17	13	55	4.2	7.7	7.0
24	12	19	16	17	51	16	18	12	22	4.6	7.7	7.2
25	12	19	15	17	45	16	18	12	16	5.7	8.3	7.0
26	12	19	15	14	37	17	17	13	15	5.7	8.2	7.0
27	12	18	15	14	35	17	17	13	14	4.7	8.1	6.8
28	12	17	15	13	30	20	17	13	12	5.2	8.2	7.0
29	13	16	15	13	21	27	16	13	12	4.2	8.1	7.0
30	32	16	15	13	---	27	14	12	12	3.6	9.0	7.0
31	38	---	15	12	---	23	---	12	---	3.6	8.8	---
TOTAL	391.8	547	503	444	878	628	595	412	1084	228.2	377.4	237.4
MEAN	12.6	18.2	16.2	14.3	30.3	20.3	19.8	13.3	34.8	7.36	12.2	7.91
MAX	38	26	20	19	148	31	41	18	339	20	146	11
MIN	9.3	16	13	11	13	16	14	12	11	3.6	3.7	6.8
AC-FT	777	1080	998	881	1740	1250	1180	817	2070	453	749	471

CAL YR 1979 TOTAL 9716.3 MEAN 26.6 MAX 464 MIN 7.9 AC-FT 19270
WTR YR 1980 TOTAL 6285.8 MEAN 17.2 MAX 339 MIN 3.6 AC-FT 12470

06799350 ELKHORN RIVER AT WEST POINT, NE

LOCATION.--Lat 41°50'22", long 96°43'38", in SW1/4NW1/4 sec.34, T.22 N., R.6 E., Cuming county, Hydrologic Unit 10220003, on right bank near right downstream wingwall of bridge on State Highway 32 and 1 mi (2 km) west of West Point.

DRAINAGE AREA.--5,100 mi^2 (13,200 km^2), approximately, of which about 4,100 mi^2 (10,600 km^2) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1972 to current year. March 1960 to September 1972 (no winter records 1960-68) in files of Corps of Engineers. Gage-height records collected since 1940 are in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 1,291.26 ft (393.576 m) National Geodetic Vertical Datum of 1929. Prior to May 18, 1976 at site on left bank 50 ft (15 m) upstream from bridge at same datum.

REMARKS.--Records fair except those for winter period, which are poor. Some small diversions above station for irrigation.

AVERAGE DISCHARGE.--12 years (water years 1969-80), 698 ft^3/s (19.77 m^3/s), 505,700 acre-ft/yr (0.624 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge estimated, 33,000 ft^3/s (935 m^3/s) June 25, 1969, gage height, 13.21 ft (4.026 m); maximum gage height, 16.09 ft (4.904 m) Mar. 18, 1978, ice jam; minimum daily, 41 ft^3/s (1.16 m^3/s) Aug. 31, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 31, 1960 reached a stage of 19.09 ft (5.819 m), backwater from ice; observed by Corps of Engineers.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,710 ft^3/s (190 m^3/s) May 28, time unknown, gage height, 9.00 ft (2.743 m), from highwater mark, no other peak above base of 4,500 ft^3/s (127 m^3/s); minimum daily, 59 ft^3/s (1.67 m^3/s) Aug. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	227	1500	410	430	420	760	1280	629	553	296	80	150
2	222	1000	470	410	430	840	1770	600	514	278	74	158
3	218	740	520	400	450	880	2030	584	501	274	59	161
4	206	660	560	390	470	820	2640	570	482	279	72	155
5	212	640	600	390	490	800	2670	554	488	283	64	152
6	208	660	660	310	450	900	2830	538	482	283	90	153
7	204	660	640	270	380	960	3010	510	497	261	87	130
8	205	691	620	240	330	1020	2770	499	478	236	72	124
9	204	665	600	220	300	1020	2120	494	435	204	74	124
10	202	648	660	240	320	980	1600	497	400	185	84	121
11	200	636	680	270	350	960	1420	490	384	171	84	118
12	200	579	640	300	380	980	1300	482	377	165	72	119
13	205	564	600	350	430	1000	1200	499	522	152	77	112
14	210	575	640	400	520	1140	1100	515	804	145	87	118
15	212	574	560	420	480	1290	1000	530	480	142	106	124
16	218	578	540	430	440	1380	950	574	593	129	155	125
17	229	590	400	470	390	1300	900	669	486	121	244	128
18	270	577	500	560	420	1290	860	696	430	124	362	129
19	310	559	600	600	470	1260	913	691	831	121	224	131
20	320	600	700	620	520	1180	916	685	1130	121	200	131
21	280	725	780	620	640	1270	895	654	630	118	160	157
22	250	806	780	600	860	1150	866	628	472	100	150	183
23	260	764	800	620	920	1090	830	591	463	97	145	157
24	260	683	820	600	860	1090	792	571	586	92	135	160
25	270	607	840	540	800	1080	759	551	482	84	120	149
26	290	612	880	500	880	1060	719	533	428	82	115	139
27	300	624	780	450	900	1090	681	2600	386	82	125	136
28	310	580	680	440	880	950	655	4800	381	87	130	139
29	310	380	600	430	840	1030	647	1400	348	84	135	139
30	500	370	540	420	---	1390	640	881	329	97	140	142
31	2000	---	450	420	---	1270	---	652	---	84	145	---
TOTAL	9512	19847	19550	13360	16020	33230	40763	25167	15372	4977	3867	4164
MEAN	307	662	631	431	552	1072	1359	812	512	161	125	139
MAX	2000	1500	880	620	920	1390	3010	4800	1130	296	362	183
MIN	200	370	400	220	300	760	640	482	329	82	59	112
AC-FT	18870	39370	38780	26500	31780	65910	80850	49920	30490	9870	7670	8260

CAL YR 1979 TOTAL 268279 MEAN 735 MAX 8000 MIN 180 AC-FT 532100
WTR YR 1980 TOTAL 205829 MEAN 562 MAX 4800 MIN 59 AC-FT 408300

06799385 PEBBLE CREEK NEAR SCRIBNER, NE

LOCATION.--Lat 41°39'34", long 96°41'00", in NW1/4SE1/4 sec.36, T.20 N., R.6 E., Dodge County, Hydrologic Unit 10220003, on right bank 12 ft (4 m) downstream from bridge on county road, 1 mi (2 km) southwest of Scribner and 3 mi (5 km) upstream from mouth.

DRAINAGE AREA.--203.52 mi² (527.12 km²).

PERIOD OF RECORD.--October 1978 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,235 ft (376.4 m) from topographic map.

REMARKS.--Records good except those for winter period, and/or periods of backwater from beaver dams, Oct. 1 to Mar. 9, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,100 ft³/s (229 m³/s) June 13, 1980, gage height, 19.13 ft (5.831 m); minimum daily, 3.7 ft³/s (0.10 m³/s) Sept. 9, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,100 ft³/s (229 m³/s) June 13, gage height, 19.13 ft (5.831 m); minimum daily, 3.7 ft³/s (0.10 m³/s) Sept. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	74	11	12	7.4	15	32	10	7.6	10	7.4	13
2	4.8	32	10	12	7.9	16	48	10	7.4	9.6	8.1	6.7
3	4.9	24	11	13	8.7	18	128	10	7.4	9.3	9.8	5.9
4	5.0	20	12	12	8.7	22	145	9.9	8.4	51	11	4.9
5	5.0	21	13	11	8.7	16	49	9.4	8.7	356	7.6	4.6
6	5.2	43	13	8.3	8.7	16	39	9.0	501	38	4.6	4.2
7	5.4	23	12	9.6	8.4	17	34	8.5	78	16	4.0	4.1
8	5.6	12	9.8	9.9	8.4	35	30	8.5	21	13	4.0	4.0
9	5.8	12	12	8.4	8.4	140	27	8.4	14	12	4.1	3.7
10	6.0	13	11	10	8.4	118	26	9.1	12	10	4.0	4.4
11	6.1	12	13	11	8.7	28	24	8.6	12	9.5	7.5	4.3
12	6.2	12	9.1	10	8.2	19	23	9.0	1660	6.9	7.7	4.4
13	6.4	13	9.8	12	8.7	14	21	9.0	2570	6.7	6.3	3.8
14	6.4	13	8.9	12	9.3	19	20	8.7	92	6.7	6.4	4.2
15	6.6	13	8.7	13	9.3	32	18	8.2	2500	12	7.6	4.4
16	6.6	13	4.0	50	8.4	25	17	9.3	108	9.4	40	4.1
17	6.8	14	8.0	90	9.3	17	16	16	38	6.7	19	4.3
18	9.0	14	11	45	11	15	16	14	26	5.5	13	4.7
19	8.6	14	12	28	11	14	15	12	50	4.7	11	4.5
20	10	14	11	19	11	16	14	10	26	5.7	10	4.2
21	7.6	46	12	15	26	14	14	9.0	18	6.6	8.9	4.2
22	7.8	123	11	12	100	13	13	8.5	102	5.4	8.7	4.4
23	8.0	29	13	11	170	13	12	8.1	92	6.3	9.0	4.7
24	8.0	20	12	8.0	66	13	12	9.0	29	7.8	9.2	4.1
25	8.2	17	11	7.9	72	13	12	9.8	17	13	8.1	4.3
26	8.4	16	12	9.3	56	13	12	9.9	15	29	8.0	4.1
27	8.6	16	12	9.3	37	15	12	40	14	17	6.1	4.1
28	8.8	15	12	7.9	34	18	11	13	13	15	6.1	4.5
29	9.0	12	12	7.6	25	57	11	6.8	12	12	6.0	4.5
30	64	12	12	7.9	---	54	10	6.3	11	12	6.6	4.1
31	290	---	12	7.6	---	31	---	6.8	---	12	29	---
TOTAL	553.6	712	341.3	499.7	764.6	866	861	324.8	8070.5	734.8	298.8	141.4
MEAN	17.9	23.7	11.0	16.1	26.4	27.9	28.7	10.5	269	23.7	9.64	4.71
MAX	290	123	13	90	170	140	145	40	2570	356	40	13
MIN	4.8	12	4.0	7.6	7.4	13	10	6.3	7.4	4.7	4.0	3.7
AC-FT	1100	1410	677	991	1520	1720	1710	644	16010	1460	593	280

CAL YR 1979 TOTAL 14137.1 MEAN 38.7 MAX 2500 MIN 3.8 AC-FT 28040
WTR YR 1980 TOTAL 14168.5 MEAN 38.7 MAX 2570 MIN 3.7 AC-FT 28100

06799450 LOGAN CREEK AT PENDER, NE

LOCATION.--Lat 42°06'40", long 96°42'00", in NW1/4 sec.26, T.25 N., R.6 E., Thurston County, Hydrologic Unit 10220004, on right bank 200 ft (61 m) downstream from bridge on Nebraska State Highway 94 at Pender and 0.7 mi (1.1 km) downstream from Rattlesnake Creek.

DRAINAGE AREA.--731 mi^2 (1,890 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,300.96 ft (396.533 m) National Geodetic Vertical Datum of 1929. Prior to Apr. 23, 1966, nonrecording gage at same site and datum.

REMARKS.--Records fair except those for winter period, which are poor.

AVERAGE DISCHARGE.--15 years, 125 ft^3/s (3.540 m^3/s), 90,560 acre-ft/yr (0.112 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,900 ft^3/s (1,050 m^3/s) Feb. 19, 1971, gage height, 23.11 ft (7.044 m); minimum daily, 12 ft^3/s (0.34 m^3/s) Aug. 11, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,900 ft^3/s (365 m^3/s) May 27 at 1300, gage height, 16.06 ft (4.895 m), no other peak above base of 1,500 ft^3/s (42.5 m^3/s); minimum daily, 19 ft^3/s (0.54 m^3/s) July 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	328	100	80	64	100	90	73	215	64	22	41
2	54	152	120	84	74	110	99	73	177	61	24	41
3	54	115	127	84	74	116	150	70	155	60	24	41
4	54	104	126	90	76	120	261	67	147	59	26	39
5	54	99	135	94	80	90	252	67	139	55	27	38
6	54	122	173	98	76	90	215	64	131	56	24	38
7	53	128	148	94	74	110	171	64	141	51	22	39
8	53	117	135	88	72	110	146	62	122	46	22	36
9	53	108	145	84	70	120	145	62	111	40	22	35
10	53	100	152	100	72	82	148	61	105	38	32	35
11	53	95	109	110	76	79	130	60	103	36	73	37
12	53	94	79	120	60	82	120	59	101	33	49	39
13	52	91	82	152	62	72	112	61	99	32	43	39
14	54	90	90	154	68	66	108	64	98	31	39	39
15	56	91	110	158	66	77	105	67	111	28	36	40
16	56	89	100	158	62	106	102	69	120	27	46	40
17	54	89	74	154	58	97	100	74	96	25	50	41
18	57	85	76	151	72	88	97	77	86	25	46	41
19	71	82	80	150	82	85	94	74	93	24	44	47
20	71	81	110	143	100	82	90	70	94	23	44	59
21	60	104	150	140	120	78	88	66	85	25	42	65
22	58	143	149	120	250	77	85	65	82	22	41	57
23	59	115	149	133	220	76	82	63	82	20	38	48
24	60	112	144	168	200	75	83	62	80	20	37	43
25	60	115	135	130	180	75	83	61	76	19	36	42
26	59	110	135	80	150	76	84	61	74	22	35	42
27	59	104	134	60	145	80	82	7500	73	24	37	43
28	58	70	128	62	135	81	79	1090	68	25	36	43
29	59	66	126	62	120	90	76	376	66	25	35	41
30	93	80	104	60	---	101	75	750	66	22	46	41
31	362	---	92	54	---	98	---	338	---	20	45	---
TOTAL	2100	3279	3717	3415	2958	2789	3552	11770	3196	1058	1143	1270
MEAN	67.7	109	120	110	102	90.0	118	380	107	34.1	36.9	42.3
MAX	362	328	173	168	250	120	261	7500	215	64	73	65
MIN	52	66	74	54	58	66	75	59	66	19	22	35
AC-FT	4170	6500	7370	6770	5870	5530	7050	23350	6340	2100	2270	2520

CAL YR 1979 TOTAL 50731 MEAN 139 MAX 3500 MIN 18 AC-FT 100600
WTR YR 1980 TOTAL 40247 MEAN 110 MAX 7500 MIN 19 AC-FT 79830

06799450 LOGAN CREEK AT PENDER, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964-68, 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT										
23...	1130	59	798	7.8	5.0	25	12.3	1.3	K12000	900
NOV										
06...	1400	124	732	7.8	1.0	35	11.1	6.3	K57700	K8750
DEC										
19...	0930	80	895	7.7	.0	15	10.3	3.8	3100	640
JAN										
22...	0930	93	835	7.8	.0	15	10.8	4.1	K20	181
31...	1245	54	836	7.4	.5	5	8.7	2.2	K53	92
MAR										
13...	1000	72	725	8.0	.5	55	14.2	2.9	83	270
APR										
24...	1145	81	835	8.4	15.0	30	10.4	5.6	K150	K90
MAY										
20...	0920	81	840	7.8	15.0	--	9.2	3.4	K120	580
JUN										
04...	0845	150	855	7.9	19.0	100	7.8	1.8	3400	5300
JUL										
18...	0930	25	675	8.2	23.0	25	7.2	2.8	73	270
AUG										
27...	1110	37	728	8.5	18.5	10	10.1	4.0	380	300

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT										
23...	7.9	527	.72	84.0	1.5	.10	.81	.91	2.4	.200
NOV										
06...	11	529	.72	177	3.2	.38	1.9	2.3	5.5	.640
DEC										
19...	22	611	.83	133	2.5	.15	.50	.65	3.2	.230
JAN										
22...	11	555	.75	139	2.2	.16	.35	.51	2.7	.240
31...	15	579	.79	84.4	3.9	.28	.00	.27	4.2	.220
MAR										
13...	9.5	523	.71	102	2.0	.27	.73	1.0	3.0	.420
APR										
24...	31	569	.77	126	1.7	.36	1.5	1.9	3.6	.550
MAY										
20...	6.7	561	.76	124	--	.07	.93	1.0	--	.340
JUN										
04...	7.8	583	.79	236	3.1	.07	1.3	1.4	4.5	.390
JUL										
18...	10	478	.65	32.3	.00	.02	1.1	1.1	1.1	.190
AUG										
27...	14	492	.67	49.5	.55	.10	.76	.86	1.4	.560

06799450 LOGAN CREEK AT PENDER, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)
NOV 06...	3.2	.360	--	--	80	--	--	--	20
JAN 31...	2.4	.120	--	--	80	--	--	--	60
MAY 20...	2.3	.210	5	100	80	1	0	4	20
AUG 27...	.47	.160	--	--	90	--	--	--	<10

DATE	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG) (71895)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
NOV 06...	--	80	--	--	--	--	--	--
JAN 31...	--	180	--	--	--	--	--	--
MAY 20...	1	50	.5	.3	.2	12	0	10
AUG 27...	--	50	--	--	--	--	--	--

DATE	TIME	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG) (39519)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39333)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39351)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG) (39363)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39368)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG) (39373)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG) (39571)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39383)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39393)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG) (39399)
NOV 08...	1200	0	.0	0	.0	.0	.0	.0	.0	.0	.0
JAN 31...	1245	0	.0	0	.0	.0	.0	.0	.0	.0	.0
JUN 04...	0845	0	.0	0	.0	.0	.0	.0	.1	.0	.0
AUG 27...	1110	0	.0	0	.0	.0	.0	.0	.0	.0	.0

DATE	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG) (39413)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG) (39343)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG) (39531)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG) (39601)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG) (39791)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG) (39541)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39403)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG) (39787)
NOV 08...	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
JAN 31...	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
JUN 04...	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
AUG 27...	.0	.0	.0	.0	.0	.0	.0	.0	0	.0

06799500 LOGAN CREEK NEAR UEHLING, NE

LOCATION.--Lat 41°42'50", long 96°31'15", on south line of SE1/4SE1/4 sec.9, T.20 N., R.8 E., Dodge County, Hydrologic Unit 10220004, near right bank on downstream side of bridge on county road, 2 mi (3 km) southwest of Uehling and 8 mi (13 km) upstream from mouth.

DRAINAGE AREA.--1,030 mi^2 (2,670 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1941 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,208.73 ft (368.421 m) National Geodetic Vertical Datum of 1929. See WSP 1918 for history of changes prior to July 15, 1963.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--39 years, 176 ft^3/s (4.984 m^3/s), 127,500 acre-ft/yr (0.157 km^3/yr); median of yearly mean discharges, 150 ft^3/s (4.248 m^3/s), 109,000 acre-ft/yr (0.134 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,200 ft^3/s (714 m^3/s) Feb. 20, 1971, gage height, 20.15 ft (6.142 m), from floodmark; maximum gage height, 20.15 ft (6.142 m), Mar. 27, 1962, present datum, Feb. 20, 1971; minimum daily discharge, 6.1 ft^3/s (0.17 m^3/s) July 26, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 5, 1940, reached a stage of 20.6 ft (6.28 m), present datum, from floodmarks, discharge, 22,200 ft^3/s (629 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,300 ft^3/s (320 m^3/s) May 27 at 2045, gage height, 16.38 ft (4.993 m), no other peak above base of 1,500 ft^3/s (42.5 m^3/s); minimum daily, 19 ft^3/s (0.54 m^3/s) Aug. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	545	130	130	68	120	137	99	305	84	19	66
2	65	264	170	116	82	140	140	99	207	79	21	56
3	64	158	196	116	82	160	235	96	184	64	20	54
4	66	129	199	110	86	180	338	94	166	65	30	53
5	64	124	226	120	90	140	367	91	158	65	36	51
6	67	131	250	120	84	140	366	88	151	60	35	50
7	66	146	220	110	80	150	277	86	143	56	32	49
8	67	143	200	110	76	160	235	83	151	49	28	48
9	67	130	210	104	74	180	212	84	136	45	35	48
10	66	117	220	120	76	140	212	85	125	38	55	47
11	67	111	180	150	82	98	201	84	121	36	99	48
12	68	110	120	165	80	92	178	83	203	38	156	48
13	67	106	120	173	82	110	163	88	148	33	120	48
14	65	103	130	190	84	140	152	90	119	32	90	48
15	65	102	140	158	80	185	145	91	210	38	80	47
16	66	102	120	234	76	187	140	95	149	33	70	48
17	66	99	90	212	70	166	137	114	142	33	80	48
18	67	98	84	199	80	142	130	115	119	34	84	48
19	76	98	130	189	86	127	128	110	114	32	72	47
20	84	95	192	191	88	121	123	101	119	30	62	48
21	80	143	197	191	230	112	118	94	117	27	60	57
22	72	197	188	190	520	108	114	88	118	21	58	75
23	69	190	182	181	400	105	108	85	119	24	56	64
24	67	151	190	186	350	102	104	82	108	20	54	56
25	67	148	180	160	300	103	104	80	101	20	52	51
26	66	151	178	86	200	105	106	78	101	20	54	49
27	66	144	183	70	180	110	107	4870	93	25	54	48
28	66	130	190	74	170	116	105	3110	96	24	55	48
29	64	90	180	74	150	139	100	618	89	22	53	48
30	177	100	160	70	---	147	98	518	90	21	52	48
31	476	---	140	66	---	146	---	615	---	20	74	---
TOTAL	2620	4355	5295	4405	4106	4171	5080	12114	4202	1188	1846	1544
MEAN	84.5	145	171	142	142	135	169	391	140	38.3	59.5	51.5
MAX	476	545	250	234	520	187	367	4870	305	84	156	75
MIN	64	90	84	66	68	92	98	78	89	20	19	47
AC-FT	5200	8640	10500	8740	8140	8270	10080	24030	8330	2360	3660	3060

CAL YR 1979 TOTAL 69093 MEAN 189 MAX 5160 MIN 25 AC-FT 137000
WTR YR 1980 TOTAL 50926 MEAN 139 MAX 4870 MIN 19 AC-FT 101000

06799500 LOGAN CREEK NEAR UEHLING, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968-71, 1974-80.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	TEMPER-ATURE, WATER (DEG C) (00010)
NOV				
06...	1050	129	750	2.5
DEC				
18...	1030	83	1000	1.0
JAN				
29...	1400	74	880	.0
MAR				
11...	1230	98	645	.5
APR				
22...	1230	114	790	20.0
JUN				
03...	1100	192	745	22.5
JUL				
15...	1000	40	271	24.5
AUG				
26...	1100	53	690	24.5

06800000 MAPLE CREEK NEAR NICKERSON, NE

LOCATION.--Lat 41°32'44", long 96°30'09", in NE1/4SW1/4 sec.10, T.18 N., R.8 E., Dodge County, Hydrologic Unit 10220003, on right bank 120 ft (37 m) upstream from bridge on U.S. Highways 77 and 275, 1.5 mi (2.4 km) northwest of Nickerson, and 4 mi (6 km) upstream from mouth.

DRAINAGE AREA.--450 mi² (1,170 km²), approximately.

PERIOD OF RECORD.--October 1951 to current year.

REVISED RECORDS.--WSP 1630: 1957-58.

GAGE.--Water-stage recorder. Datum of gage is 1,194.56 ft (364.102 m) National Geodetic Vertical Datum of 1929. Prior to July 28, 1960, nonrecording gage at site 120 ft (37 m) downstream at present datum.

REMARKS.--Records fair except those for winter period, which are poor.

AVERAGE DISCHARGE.--29 years, 55.5 ft³/s (1.572 m³/s), 40,210 acre-ft/yr (49.6 hm³/yr); median of yearly mean discharges, 49 ft³/s (1.388 m³/s), 35,500 acre-ft/yr (43.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,800 ft³/s (306 m³/s) June 21, 1960, gage height, 14.67 ft (4.471 m); maximum gage height, 16.10 ft (4.907 m) Feb. 19, 1971, from floodmark, backwater from ice; minimum daily discharge, 0.1 ft³/s (0.003 m³/s) Jan. 15, 16, 1956, Aug. 1, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since 1944, 16.28 ft (4.962 m) June 11, 1944, from floodmarks, discharge, 35,000 ft³/s (991 m³/s), from indirect measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 800 ft³/s (22.7 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 22	----	1300	36.8	ice jam		June 15	1400	888	25.1	8.54	2.603
June 13	0930	*1870	53.0	10.96	3.341						

Minimum daily discharge, 0.25 ft³/s (0.007 m³/s), Sept. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.35	166	2.5	.70	.70	35	36	6.6	4.8	3.6	.58	.43
2	.63	35	2.6	.70	.80	40	45	6.1	4.9	3.1	.55	.71
3	.63	10	2.8	.70	.80	45	130	5.6	4.1	3.5	.51	.43
4	.35	5.9	3.0	.80	1.0	45	210	5.2	27	4.2	1.4	.29
5	.35	3.4	2.7	.80	1.1	40	114	4.6	4.1	10	.41	.31
6	.43	3.0	2.3	.80	.90	45	71	3.9	111	19	.36	.30
7	.53	2.0	2.1	.70	.80	54	59	2.8	291	5.7	.31	.30
8	.53	1.8	1.9	.60	.70	70	49	2.5	41	3.5	.29	.30
9	.35	2.0	2.2	.50	.60	68	42	2.0	7.7	2.2	.32	.35
10	.43	1.7	2.3	.70	.80	58	39	1.8	3.5	1.3	.67	.67
11	.63	1.8	1.6	.80	.70	49	36	2.0	1.4	1.2	1.6	.36
12	.89	1.9	1.3	.70	.60	42	33	3.1	67	.89	.42	.39
13	.89	1.3	1.5	1.5	.70	37	29	2.5	957	1.2	.32	.43
14	.75	1.7	1.6	2.0	.70	33	26	2.1	170	1.2	.47	.25
15	1.0	1.9	1.7	2.2	.70	54	23	2.2	564	1.4	.62	.52
16	1.0	1.7	1.0	3.0	.60	60	21	4.0	277	1.7	3.4	.55
17	1.0	1.4	1.3	2.2	.50	40	19	8.5	76	5.3	.68	.55
18	1.3	1.4	1.8	1.9	.80	30	17	11	34	1.7	.58	.47
19	2.0	1.1	1.5	2.1	.90	25	17	12	120	.56	.61	.50
20	2.0	1.0	1.4	1.5	.90	19	16	8.7	108	.55	.62	.44
21	1.6	4.3	1.4	1.2	22	16	14	5.8	28	.52	.52	.29
22	2.7	44	1.3	1.1	880	13	13	2.6	19	.47	.52	.35
23	2.0	33	1.3	1.2	660	11	11	1.8	126	.47	.39	.35
24	2.0	13	1.3	1.8	220	11	10	.84	79	.47	.43	.41
25	2.0	12	1.4	1.2	140	9.7	9.1	.41	27	.76	.27	.41
26	2.0	11	1.7	.90	120	9.1	9.1	.28	15	.86	.33	.35
27	2.1	12	1.7	.80	94	9.8	8.6	.37	10	.61	.52	.35
28	2.2	5.7	1.5	.90	68	11	7.9	72	7.9	.58	.66	.39
29	2.3	3.5	1.5	.90	50	23	7.1	16	5.3	.48	.42	.47
30	11	3.5	1.0	.80	---	113	6.7	9.3	4.6	.55	.60	.55
31	92	---	.80	.60	---	59	---	5.9	---	.58	.70	---
TOTAL	137.94	388.0	54.00	36.30	2269.30	1174.6	1128.5	212.50	3195.3	78.15	20.08	12.47
MEAN	4.45	12.9	1.74	1.17	78.3	37.9	37.6	6.85	107	2.52	.65	.42
MAX	92	166	3.0	3.0	880	113	210	72	957	19	3.4	.71
MIN	.35	1.0	.80	.50	.50	9.1	6.7	.28	1.4	.47	.27	.25
AC-FT	274	770	107	72	4500	2330	2240	421	6340	155	40	25

CAL YR 1979 TOTAL 15662.72 MEAN 42.9 MAX 2000 MIN .23 AC-FT 31070
WTR YR 1980 TOTAL 8707.14 MEAN 23.8 MAX 957 MIN .25 AC-FT 17270

06800500 ELKHORN RIVER AT WATERLOO, NE
(National stream-quality accounting network station)

LOCATION.--Lat 41°17'25", long 96°17'05", in SW1/4 sec.3, T.15 N., R.10 E., Douglas County, Hydrologic Unit 10220003, on right bank 100 ft (30 m) upstream from bridge at north edge of Waterloo and 3.5 mi (5.6 km) downstream from Rawhide Creek.

DRAINAGE AREA.--6,900 mi² (17,900 km²), approximately, of which about 5,870 mi² (15,200 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1899 to November 1903, May 1911 to September 1915, August 1928 to current year. Published as "at Arlington" 1899-1903, July 1913 to September 1915. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1390: 1914(M), 1915, 1936, 1943(M). WDR NE-74: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,104.73 ft (336.722 m) National Geodetic Vertical Datum of 1929. Oct. 1, 1960 to June 28, 1978 at datum 2.00 ft (0.610 m) higher. See WSP 1918 for history of changes prior to Oct. 1, 1960.

REMARKS.--Records good except those for winter period, which are poor. Some small diversions above station for irrigation.

AVERAGE DISCHARGE.--60 years, 1,120 ft³/s (31.72 m³/s), 811,400 acre-ft/yr (1.00 km³/yr); median of yearly mean discharges, 1,000 ft³/s (28.32 m³/s), 724,500 acre-ft/yr (0.893 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 100,000 ft³/s (2,830 m³/s) June 12, 1944, gage height, 16.6 ft (5.06 m) from floodmark in gage well, site and datum then in use, from rating curve extended above 22,000 ft³/s (623 m³/s) on basis of current-meter measurement of peak flow in main channel and velocity-area studies of overflow section; minimum observed, 50 ft³/s (1.42 m³/s) Nov. 12, 1940.

EXTREMES OUTSIDE PERIOD OF RECORD.--Stage and discharge of the flood of June 12, 1944, are the greatest known since at least 1880.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 6,000 ft³/s (170 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 23	1000	ice jam		*11.05	3.368
May 28	1100	*12200	346	9.43	2.874
June 13	1300	6280	178	7.70	2.347
June 15	2100	6050	171	7.55	2.301

Minimum daily discharge, 110 ft³/s (3.12 m³/s) Aug. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	317	3100	621	600	560	1300	1950	868	1770	496	145	356
2	312	1900	640	500	640	1500	2000	861	1290	462	134	371
3	307	1200	737	480	680	1800	3060	847	1110	440	128	293
4	298	933	897	470	700	1600	4080	812	1460	440	128	257
5	302	847	1080	480	780	1600	3580	805	2990	566	159	248
6	293	861	1310	430	720	1900	3370	791	2330	918	134	244
7	298	897	1270	400	600	2200	3720	764	2810	560	145	239
8	298	933	1200	350	480	2300	3990	737	1460	462	141	226
9	298	911	1080	340	400	2200	4040	711	1120	434	121	218
10	307	854	1120	280	450	2100	3900	711	970	402	110	206
11	312	784	1310	330	480	2300	3400	704	847	376	434	202
12	322	764	1140	400	500	2500	2320	698	1070	331	252	202
13	336	744	847	500	600	2600	2090	691	4480	298	198	194
14	336	698	960	520	720	2800	1890	698	2430	279	206	186
15	336	698	900	560	640	2600	1710	711	3540	261	194	182
16	346	698	720	640	560	2140	1620	737	3650	284	239	186
17	351	678	750	800	480	1570	1500	826	1590	293	356	182
18	381	672	780	960	540	1460	1380	970	1210	252	361	202
19	413	665	880	940	700	1420	1230	1020	1030	239	366	198
20	456	659	850	920	800	1390	1230	992	1050	222	501	210
21	462	678	940	910	1000	1420	1180	948	1690	206	387	202
22	530	1110	960	900	1300	1500	1140	918	1190	210	351	198
23	507	1700	1000	840	1350	1440	1120	868	977	190	288	226
24	473	1410	1100	870	1300	1340	1040	812	1040	174	231	266
25	456	1210	1200	780	1200	1320	1010	764	897	167	210	257
26	434	1090	1310	700	1500	1300	970	731	847	170	206	252
27	429	1060	1400	600	1700	1260	918	732	717	214	218	222
28	424	1060	1200	610	1680	1300	918	9280	634	170	210	214
29	424	1040	1150	650	1700	1380	918	5050	578	163	214	206
30	596	678	870	660	---	1770	897	2750	530	159	214	214
31	2800	---	680	610	---	2120	---	1920	---	152	214	---
TOTAL	14154	30532	30902	19030	24760	55430	62171	40727	47307	9990	7195	6859
MEAN	457	1018	997	614	854	1788	2072	1314	1577	322	232	229
MAX	2800	3100	1400	960	1700	2800	4080	9280	4480	918	501	371
MIN	293	659	621	280	400	1260	897	691	530	152	110	182
AC-FT	28070	60560	61290	37750	49110	109900	123300	80780	93830	19820	14270	13600

CAL YR 1979 TOTAL 429141 MEAN 1176 MAX 13000 MIN 225 AC-FT 851200
WTR YR 1980 TOTAL 349057 MEAN 954 MAX 9280 MIN 110 AC-FT 692400

06800500 ELKHORN RIVER AT WATERLOO, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1966 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1977 to current year.
WATER TEMPERATURES: November 1977 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 750 micromhos Jan. 10, 1979; minimum daily, 235 micromhos Mar. 15, 1979.
WATER TEMPERATURES: Maximum, 36.0°C Aug. 19, 1979; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 742 micromhos Dec. 3; minimum daily, 250 micromhos June 16.
WATER TEMPERATURES: Maximum, 30.0°C July 11; minimum, 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT											
29...	1145	418	529	8.5	11.0	20	22	11.3	1.6	400	130
NOV											
10...	1400	850	550	7.8	2.0	30	35	15.6	7.6	K8500	26000
DEC											
14...	1130	1310	475	8.2	1.0	85	170	12.6	4.8	5900	28000
JAN											
10...	1100	270	625	8.2	.5	7	7.0	13.2	5.0	710	700
FEB											
14...	1445	720	530	7.8	.0	20	21	11.9	1.6	4100	1000
MAR											
11...	1130	2240	335	7.8	.0	180	200	11.8	12	1500	K30000
APR											
08...	1430	4030	445	7.5	10.5	300	300	8.8	10	933	10000
MAY											
08...	1200	731	520	8.4	16.0	20	14	13.4	--	K53	K56
29...	1030	5070	255	7.3	22.5	1900	--	--	--	--	--
JUN											
12...	1120	730	525	8.5	22.5	100	65	9.0	8.6	3500	680
JUL											
10...	1100	402	534	8.3	31.5	60	40	9.8	11	2400	200
AUG											
11...	1245	448	237	7.4	24.0	200	220	5.0	12	K88000	K110000
SEP											
10...	1510	198	620	8.5	21.5	30	15	10.4	9.8	1700	K170

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
OCT										
29...	230	15	67	14	23	.7	8.3	210	44	15
NOV										
10...	230	17	66	15	26	.8	13	210	67	18
DEC										
14...	210	1	63	13	24	.7	8.4	210	38	11
JAN										
10...	260	11	78	16	32	.9	8.6	250	58	21
FEB										
14...	240	28	72	14	24	.7	7.8	210	41	14
MAR										
11...	140	9	41	8.9	19	.7	10	130	41	11
APR										
08...	180	8	53	11	21	.7	10	170	36	9.2
MAY										
08...	220	12	64	15	24	.7	7.9	210	44	11
29...	120	--	37	7.0	8.9	.4	9.3	--	18	5.0
JUN										
12...	230	33	67	16	27	.8	9.2	200	57	12
JUL										
10...	220	24	65	15	27	.8	9.4	200	57	15
AUG										
11...	96	34	25	8.2	10	.4	8.6	62	35	7.7
SEP										
10...	220	15	62	17	39	1.1	9.7	210	61	29

06800500 ELKHORN RIVER AT WATERLOO, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)
OCT 29...	.3	29	343	333	.47	387	1.4	1.4	.08	.03
NOV 10...	.3	29	373	374	.51	856	2.8	2.8	.64	.55
DEC 14...	.3	36	316	327	.43	1120	1.7	1.7	.43	.42
JAN 10...	.4	36	378	414	.51	276	3.0	3.0	.29	.29
FEB 14...	.3	36	344	345	.47	669	2.0	2.0	.34	.33
MAR 11...	.3	21	260	237	.35	1570	1.4	1.4	1.1	.93
APR 08...	.3	26	322	274	.44	3500	1.4	1.2	.18	.18
MAY 08...	.4	23	321	316	.44	634	.10	.10	.15	.03
29...	.4	--	--	--	--	--	1.6	1.3	.43	.42
JUN 12...	.3	20	334	331	.45	658	.61	.58	.15	.02
JUL 10...	.5	25	348	338	.47	378	--	.94	.14	.13
AUG 11...	.2	8.1	156	160	.21	189	4.2	4.3	--	--
SEP 10...	.4	26	408	372	.55	218	.45	.44	.00	.00

DATE	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N) (00607)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N) (00624)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITROGEN, TOTAL (MG/L AS N) (00600)	NITROGEN, DISSOLVED (MG/L AS N) (00602)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
OCT 29...	.88	.46	.96	.47	.49	2.4	1.9	.520	.440	6.5
NOV 10...	2.3	.55	2.9	1.8	1.1	5.7	3.9	.750	.540	--
DEC 14...	2.2	.68	2.6	1.5	1.1	4.3	2.8	.710	.280	18
JAN 10...	1.5	1.3	1.8	.20	1.6	4.8	4.6	.500	.450	14
FEB 14...	.65	.31	.99	.35	.64	3.0	2.6	.660	.370	--
MAR 11...	1.7	1.7	2.8	.20	2.6	4.2	4.0	.900	.370	--
APR 08...	4.7	1.3	4.9	3.4	1.5	6.3	2.7	1.300	.240	45
MAY 08...	1.5	1.4	1.6	.20	1.4	1.7	1.5	.450	.320	--
29...	--	1.6	--	--	2.1	--	3.4	.070	.070	48
JUN 12...	2.8	.79	2.9	2.1	.81	3.5	1.4	.700	.290	23
JUL 10...	2.7	1.4	2.8	1.3	1.5	--	2.4	.700	.400	17
AUG 11...	--	--	--	--	--	--	--	.780	.330	--
SEP 10...	2.0	.65	2.0	1.4	.65	2.5	1.1	.830	.530	14

DATE	TIME	COLOR (PLATINUM COBALT UNITS) (00080)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L) (00340)	ARSENIC SUSPENDED TOTAL (UG/L AS AS) (01001)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA) (01006)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD) (01026)	CADMIUM DISSOLVED (UG/L AS CD) (01025)
NOV 10...	1400	--	--	2	5	300	100	200	--	4	2	2
DEC 14...	1130	--	--	--	--	--	--	--	--	--	--	--
FEB 14...	1445	--	--	0	5	300	100	200	50	0	0	<1
MAR 11...	1130	--	--	--	--	--	--	--	--	--	--	--
MAY 08...	1200	--	--	0	7	400	300	60	--	0	0	<1
29...	1030	80	560	41	3	--	--	--	60	3	2	1
JUN 12...	1120	--	--	--	--	--	--	--	--	--	--	--
AUG 11...	1245	--	--	3	5	200	100	100	190	0	0	0
SEP 10...	1510	--	--	--	--	--	--	--	--	--	--	--

06800500 ELKHORN RIVER AT WATERLOO, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR) (01031)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO) (01036)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU) (01041)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE) (01044)	IRON, DISSOLVED (UG/L AS FE) (01046)
NOV 10...	0	0	0	3	0	<3	18	11	7	2600	2200	380
DEC 14...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 14...	0	0	0	0	0	<3	7	2	5	1300	1300	30
MAR 11...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 08...	0	0	0	3	0	<3	5	2	3	1100	1100	<10
29...	120	120	0	67	67	0	160	140	20	140000	140000	710
JUN 12...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 11...	30	30	0	8	8	0	20	6	14	17000	17000	80
SEP 10...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB) (01050)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN) (01054)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG) (71895)	MERCURY DISSOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI) (01066)	NICKEL, DISSOLVED (UG/L AS NI) (01065)
NOV 10...	10	8	2	320	270	50	.1	.1	.0	13	12	1
DEC 14...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 14...	8	8	0	110	80	30	.2	.0	.2	5	4	1
MAR 11...	--	--	--	--	--	--	--	--	--	--	--	--
MAY 08...	23	23	0	230	230	2	.1	.1	.0	5	2	3
29...	120	120	3	9400	9300	70	.8	.0	.9	--	--	--
JUN 12...	--	--	--	--	--	--	--	--	--	--	--	--
AUG 11...	15	11	4	880	730	150	.1	.0	.1	19	18	1
SEP 10...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE) (01146)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG) (01076)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN) (01091)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED (MG/L AS C) (00689)
NOV 10...	6	0	6	0	0	0	40	30	6	29	.3
DEC 14...	--	--	--	0	--	--	--	--	--	--	--
FEB 14...	4	0	4	0	0	0	40	30	10	11	2.1
MAR 11...	--	--	--	0	--	--	--	--	--	--	--
MAY 08...	4	0	4	0	0	0	20	20	<3	7.9	6.8
29...	4	2	2	--	--	0	590	570	20	--	--
JUN 12...	--	--	--	3	--	--	--	--	--	--	--
AUG 11...	1	0	1	0	0	0	80	60	20	--	--
SEP 10...	--	--	--	0	--	--	--	--	--	--	--

06800500 ELKHORN RIVER AT WATERLOO, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	PERTHANE TOTAL (UG/L) (39034)	PCB, TOTAL (UG/L) (39516)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG) (39519)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L) (39250)	ALDRIN, TOTAL (UG/L) (39330)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39333)	CHLORDANE, TOTAL (UG/L) (39350)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39351)	DDD, TOTAL (UG/L) (39360)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG) (39363)	DDE, TOTAL (UG/L) (39365)
NOV 10...	1400	--	--	0	--	--	.0	--	0	--	.0	--
FEB 14...	1445	--	--	0	--	--	.0	--	0	--	.0	--
MAY 29...	1030	.00	.0	--	.00	.00	--	.0	--	.00	--	.00
AUG 11...	1245	--	--	0	--	--	.0	--	0	--	.0	--

DATE	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39368)	DDT, TOTAL (UG/L) (39370)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG) (39373)	DIAZINON, TOTAL (UG/L) (39570)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG) (39571)	DIELDRIN TOTAL (UG/L) (39380)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39383)	ENDOSULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39393)	ETHION, TOTAL (UG/L) (39398)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG) (39399)
NOV 10...	.0	--	.0	--	.0	--	.0	--	--	.0	--	.0
FEB 14...	.0	--	.0	--	.0	--	.0	--	--	.0	--	.0
MAY 29...	--	.00	--	.00	--	<.01	--	.00	.00	--	.00	--
AUG 11...	.0	--	.0	--	.0	--	.0	--	--	.0	--	.0

DATE	HEPTACHLOR, TOTAL (UG/L) (39410)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG) (39413)	HEPTACHLOR EPOXIDE TOTAL (UG/L) (39420)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE TOTAL (UG/L) (39340)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG) (39343)	MALATHION, TOTAL (UG/L) (39530)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG) (39531)	METHOXYCHLOR, TOTAL (UG/L) (39480)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)	METHYL PARATHION, TOTAL (UG/L) (39600)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG) (39601)
NOV 10...	--	.0	--	.0	--	.0	--	.0	--	.0	--	.0
FEB 14...	--	.0	--	.0	--	.0	--	.0	--	.0	--	.0
MAY 29...	.00	--	.00	--	<.01	--	.00	--	.00	--	.00	--
AUG 11...	--	.0	--	.0	--	.0	--	.0	--	.0	--	.0

DATE	METHYL TRITHION, TOTAL (UG/L) (39790)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG) (39791)	PARATHION, TOTAL (UG/L) (39540)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG) (39541)	TOXAPHENE, TOTAL (UG/L) (39400)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39403)	TOTAL TRITHION (UG/L) (39786)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG) (39787)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	MIREX, TOTAL (UG/L) (39755)	SILVEX, TOTAL (UG/L) (39760)
NOV 10...	--	.0	--	.0	--	0	--	.0	--	--	--	--
FEB 14...	--	.0	--	.0	--	0	--	.0	--	--	--	--
MAY 29...	.00	--	.00	--	0	--	.00	--	.16	.01	.00	.00
AUG 11...	--	.0	--	.0	--	0	--	.0	--	--	--	--

06800500 ELKHORN RIVER AT WATERLOO, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

DATE	NOV 10,79	MAR 11,80	MAY 8,80	JUN 12,80
TIME	1400	1130	1200	1120
TOTAL CELLS/ML	5700	1500	170000	300000
DIVERSITY: DIVISION	0.9	1.5	1.0	0.9
.CLASS	0.9	1.6	1.0	0.9
..ORDER	1.3	1.8	1.5	1.2
...FAMILY	1.4	2.8	2.2	1.7
....GENUS	1.5	2.9	2.8	2.7

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	--	-	--	-	1300	1	--	-
...MICRACTINIACEAE								
....GOLENKINIA	--	-	--	-	--	-	--	-
....MICRACTINIUM	--	-	--	-	3900	2	1700	1
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	27	2	30000#	17	12000	4
....DICTYOSPHAERIUM	--	-	--	-	--	-	6900	2
....FRANCEIA	--	-	--	-	2600	2	--	-
....KIRCHNERIELLA	--	-	--	-	9100	5	1700	1
....OOCYSTIS	--	-	--	-	2600	2	8600	3
....SELENASTRUM	--	-	--	-	--	-	--	-
....TETRAEDRON	--	-	--	-	--	-	3400	1
....TREUBARIA	--	-	--	-	--	-	--	-
....WESTELLA	--	-	--	-	--	-	--	-
...SCENEDESMACEAE								
....ACTINASTRUM	--	-	--	-	16000	9	14000	5
....CORONASTRUM	--	-	--	-	--	-	--	-
....CRUCIGENIA	--	-	--	-	--	-	27000	9
....SCENEDESMUS	--	-	96	7	29000#	17	110000#	36
....TETRASTRUM	--	-	--	-	--	-	6900	2
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	52	1	82	6	--	-	6900	2
..ZYGNEMATALES								
...DESMIDIACEAE								
....CLOSTERIUM	--	-	--	-	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	310	5	--	-	52000#	30	87000#	29
....MELOSIRA	210	4	27	2	--	-	8600	3
..PENNALES								
...ACHNANTHACEAE								
....COCCONEIS	--	-	--	-	--	-	--	-
...DIATOMACEAE								
....OPEPHORA	--	-	14	1	--	-	--	-
...FRAGILARIACEAE								
....FRAGILARIA	520	9	55	4	--	-	--	-
....SYNEDRA	--	-	14	1	1300	1	--	-
...GOMPHONEMATACEAE								
....GOMPHONEIS	--	-	14	1	--	-	--	-
....GOMPHONEMA	--	-	14	1	--	-	--	-
...MERIDIONACEAE								
....MERIDION	--	-	14	1	--	-	--	-
...NAVICULACEAE								
....DIPLONEIS	--	-	--	-	--	-	--	-
....GYROSIGMA	--	-	--	-	--	-	--	-
....NAVICULA	--	-	96	7	--	-	--	-
....PINNULARIA	--	-	--	-	--	-	--	-
...NITZSCHIACEAE								
....HANTZSCHIA	--	-	14	1	--	-	--	-
....NITZSCHIA	310	5	230#	16	24000	14	6900	2
...SURIRELLACEAE								
....SURIRELLA	--	-	110	8	--	-	--	-
.CHRYSOPHYCEAE								
..CHRYSOMONADALES								
...CHROMULINACEAE								
....CHRYSOCOCCUS	--	-	--	-	1300	1	--	-
.XANTHOPHYCEAE								
..HETEROCOCCALES								
...CHLOROTHECIACEAE								
....OPHIOCYTIUM	--	-	14	1	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOMONADACEAE								
....CRYPTOMONAS	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06800500 ELKHORN RIVER AT WATERLOO, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

DATE	NOV 10,79		MAR 11,80		MAY 8,80		JUN 12,80	
TIME	1400		1130		1200		1120	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....AGMENELLUM	210	4	--	-	--	-	--	-
....ANACYSTIS	--	-	--	-	--	-	--	-
....COCCOCHLORIS	--	-	--	-	--	-	--	-
..HORMOGONALES								
...NOSTOCACEAE								
....ANABAENA	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE								
....OSCILLATORIA	4100#	72	620#	42	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	--	-	--	-	--	-
....TRACHELOMONAS	--	-	14	1	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06800500 ELKHORN RIVER AT WATERLOO, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

DATE	JUL 10,80	AUG 11,80	SEP 10,80
TIME	1100	1245	1510
TOTAL CELLS/ML	480000	16000	560000
DIVERSITY: DIVISION	0.6	1.5	1.1
.CLASS	0.6	1.5	1.1
..ORDER	1.3	2.3	1.5
...FAMILY	1.5	3.0	1.9
....GENUS	1.7	3.4	2.6

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...CHARACIACEAE						
....SCHROEDERIA	*	0	--	-	--	-
...MICRACTINIACEAE						
....GOLENKINIA	--	-	140	1	--	-
....MICRACTINIUM	2500	1	--	-	--	-
...OOCYSTACEAE						
....ANKISTRODESMUS	*	0	140	1	24000	4
....DICTYOSPHAERIUM	--	-	--	-	4300	1
....FRANCEIA	--	-	--	-	--	-
....KIRCHNERIELLA	*	0	720	5	47000	8
....OOCYSTIS	--	-	--	-	--	-
....SELENASTRUM	*	0	--	-	--	-
....TETRAEDRON	--	-	--	-	--	-
....TREUBARIA	*	0	--	-	*	0
....WESTELLA	2500	1	--	-	--	-
...SCENEDESMACEAE						
....ACTINASTRUM	7400	2	--	-	83000	15
....CORONASTRUM	--	-	--	-	23000	4
....CRUCIGENIA	--	-	--	-	--	-
....SCENEDESMUS	*	0	580	4	110000#	20
....TETRASTRUM	--	-	--	-	--	-
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	--	-	--	-	2900	1
..ZYGNEMATALES						
...DESMIDIACEAE						
....CLOSTERIUM	--	-	580	4	--	-
CHRYSOPHYTA						
.BACILLARIOPHYCEAE						
..CENTRALES						
...COSCINODISCACEAE						
....CYCLOTELLA	17000	4	720	5	5800	1
....MELOSIRA	--	-	--	-	--	-
..PENNALES						
...ACHNANTHACEAE						
....COCCONEIS	--	-	1200	7	--	-
...DIATOMACEAE						
....OPEPHORA	--	-	--	-	--	-
...FRAGILARIACEAE						
....FRAGILARIA	--	-	--	-	--	-
....SYNEDRA	--	-	--	-	--	-
...GOMPHONEMATACEAE						
....GOMPHONEIS	--	-	--	-	--	-
....GOMPHONEMA	--	-	--	-	--	-
...MERIDIONACEAE						
....MERIDION	--	-	--	-	--	-
...NAVICULACEAE						
....DIPLONEIS	--	-	290	2	--	-
....GYROSIGMA	--	-	140	1	--	-
....NAVICULA	--	-	580	4	--	-
....PINNULARIA	--	-	140	1	--	-
...NITZSCHIACEAE						
....HANTZSCHIA	--	-	--	-	--	-
....NITZSCHIA	8000	2	3700#	24	5800	1
...SURIRELLACEAE						
....SURIRELLA	--	-	--	-	--	-
.CHRYSOPHYCEAE						
..CHRYSOMONADALES						
...CHROMULINACEAE						
....CHRYSOCOCCUS	--	-	--	-	--	-
.XANTHOPHYCEAE						
..HETEROCOCCALES						
...CHLOROTHECIACEAE						
....OPHIOCYTIUM	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)						
.CRYPTOPHYCEAE						
..CRYPTOMONADALES						
...CRYPTOMONADACEAE						
....CRYPTOMONAS	*	0	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06800500 ELKHORN RIVER AT WATERLOO, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

DATE TIME	JUL 10,80 1100		AUG 11,80 1245		SEP 10,80 1510	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..CHROOCOCCALES						
...CHROOCOCCACEAE						
....AGMENELLUM	71000	15	2300	15	210000#	37
....ANACYSTIS	*	0	1000	6	--	-
....COCCOCHLORIS	23000	5	--	-	--	-
..HORMOGONALES						
...NOSTOCACEAE						
....ANABAENA	330000#	68	580	4	--	-
...OSCILLATORIACEAE						
....OSCILLATORIA	13000	3	2900#	18	43000	8
EUGLENOPHYTA (EUGLENOIDS)						
.EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
....EUGLENA	--	-	140	1	--	-
....TRACHELOMONAS	*	0	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
 * - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	LENGTH OF EXPO- SURE (DAYS) (00022)	BIOMASS CHLORO- PHYLL RATIO PERI- PHYTON (UNITS) (70950)	CHLOR-A PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70958)	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PERI- PHYTON BIOMASS ASH WEIGHT G/SQ M (00572)
JUL							
29...	1030	33	1500	1.10	.050	11.0	9.40

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)
AUG						AUG					
07...	1000	605	7.9	26.0	8.9	07...	2400	555	8.3	28.0	6.5
07...	1200	575	8.2	28.0	11.2	08...	0200	555	8.3	27.0	5.9
07...	1400	570	8.3	31.0	13.6	08...	0400	555	8.5	26.0	5.8
07...	1600	585	7.9	32.0	13.7	08...	0600	580	8.6	25.0	6.3
07...	1800	575	8.3	32.0	12.6	08...	0800	580	8.2	24.5	6.2
07...	2000	568	8.3	30.0	10.1	08...	1000	630	8.4	25.5	7.6
07...	2200	560	8.2	29.0	7.7						

06800500 ELKHORN RIVER AT WATERLOO, NE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	534	558	685	458	517	408	506	525	413	526	617	547
2	527	559	708	458	510	449	504	511	415	548	607	385
3	525	548	742	470	524	413	470	520	502	558	605	494
4	542	540	695	475	505	409	485	510	494	568	583	526
5	557	538	641	477	497	444	502	520	374	519	637	528
6	529	546	571	483	502	435	502	515	495	521	574	522
7	532	541	525	535	496	445	490	510	340	475	578	515
8	521	538	545	604	490	435	456	520	438	539	618	513
9	524	558	511	605	475	437	435	525	512	552	608	547
10	537	549	507	612	479	435	445	530	558	558	587	553
11	549	541	521	608	483	375	460	530	570	571	339	588
12	556	558	542	608	491	338	475	520	551	548	436	574
13	564	558	521	608	512	370	487	533	253	536	553	548
14	569	549	491	610	530	423	492	535	319	532	568	533
15	562	552	529	608	527	450	499	528	345	519	605	537
16	557	541	578	589	526	390	508	510	250	529	552	574
17	554	546	642	534	510	405	513	493	475	538	495	573
18	560	541	635	507	473	439	519	500	472	541	502	503
19	552	539	658	484	452	475	525	485	510	541	515	603
20	548	531	692	470	438	468	528	493	255	485	465	590
21	543	531	670	465	430	438	528	510	459	532	454	557
22	536	532	600	483	426	432	526	465	475	578	487	557
23	528	532	541	490	378	423	522	440	460	627	500	567
24	518	558	498	482	322	423	515	465	500	598	523	586
25	509	558	480	477	339	429	517	480	491	564	558	565
26	512	558	486	488	440	437	525	485	497	589	598	569
27	518	579	462	586	410	446	519	495	510	602	575	567
28	523	595	462	460	360	450	515	320	520	538	575	557
29	529	625	450	490	414	462	518	289	530	592	605	547
30	507	661	451	535	---	485	518	368	522	641	586	563
31	480	---	459	520	---	509	---	340	---	647	563	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.5	10.0	1.0	.0	.0	.0	8.0	17.0	20.0	25.0	23.0	23.0
2	18.0	10.0	1.0	1.0	.0	.0	8.0	17.0	21.0	24.0	26.0	22.0
3	16.5	11.0	1.0	1.0	.0	1.0	7.0	19.0	22.0	23.0	25.0	23.0
4	12.5	8.0	.0	1.0	.0	1.0	5.0	19.0	22.0	24.0	24.0	23.0
5	13.0	7.0	1.0	1.0	.0	.0	7.0	18.0	23.0	25.0	21.0	23.0
6	15.0	9.0	1.0	.0	.0	.0	10.0	18.0	28.0	27.0	24.0	25.0
7	15.5	6.0	1.0	.0	.0	1.0	13.0	16.0	25.0	26.0	26.0	26.0
8	13.5	5.0	.0	.0	.0	1.0	12.0	13.0	21.0	27.0	26.0	25.0
9	11.0	4.0	.0	1.0	.0	1.0	9.0	14.0	21.0	28.0	26.0	23.0
10	13.0	1.0	2.0	1.0	.0	2.0	9.0	14.0	22.0	29.0	25.0	18.0
11	17.5	5.0	1.0	1.0	.0	.0	10.0	15.0	23.0	30.0	23.0	20.0
12	15.0	4.0	1.0	2.0	.0	1.0	8.0	14.0	23.0	28.0	23.0	21.0
13	12.0	5.0	1.0	2.0	.0	1.0	9.0	13.0	21.0	25.0	24.0	22.0
14	10.5	4.0	1.0	3.0	.0	1.0	9.0	13.0	24.0	27.0	24.0	19.0
15	11.5	7.0	1.0	4.0	.0	1.0	9.0	16.0	23.0	28.0	22.0	18.0
16	13.5	6.0	.0	4.0	.0	3.0	11.0	17.0	21.0	25.0	23.0	18.0
17	13.0	6.0	.0	1.0	.0	2.0	12.0	14.0	21.0	26.0	24.0	13.0
18	12.5	10.0	2.0	1.0	.0	4.0	12.0	14.0	23.0	25.0	25.0	16.0
19	14.5	9.0	1.0	.0	.0	7.0	15.0	14.0	23.0	26.0	26.0	19.0
20	15.0	7.0	.0	1.0	.0	8.0	17.0	17.0	21.0	27.0	27.0	21.0
21	11.0	7.0	1.0	1.0	.0	7.0	18.0	19.0	20.0	25.0	23.0	18.0
22	7.5	6.0	1.0	1.0	.0	7.0	19.0	20.0	23.0	23.0	24.0	18.0
23	6.0	4.0	.0	.0	.0	7.0	18.0	21.0	22.0	23.0	23.0	15.0
24	7.5	1.0	.0	1.0	1.0	5.0	15.0	21.0	24.0	23.0	23.0	16.0
25	9.0	3.0	1.0	1.0	.0	4.0	14.0	22.0	26.0	24.0	24.0	16.0
26	11.0	4.0	2.0	1.0	.0	5.0	15.0	23.0	27.0	23.0	25.0	14.0
27	12.5	5.0	2.0	.0	1.0	4.0	14.0	23.0	28.0	23.0	22.0	16.0
28	12.5	1.0	1.0	1.0	1.0	5.0	14.0	15.0	27.0	23.0	22.0	17.0
29	11.0	.0	.0	.0	.0	6.0	15.0	21.0	25.0	26.0	23.0	18.0
30	11.0	3.0	.0	.0	---	5.0	16.0	22.0	24.0	24.0	24.0	16.0
31	10.5	---	1.0	---	---	5.0	---	21.0	---	24.0	23.0	---

06800500 ELKHORN RIVER AT WATERLOO, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE, WATER (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)
OCT							
13...	1130	342	9.5	78	72	--	--
29...	1145	418	11.0	89	100	--	--
NOV							
10...	1400	850	2.0	207	475	--	--
APR							
08...	1430	4030	10.5	2860	31100	10	18
MAY							
08...	1200	731	16.0	206	407	--	--
29...	1030	5070	22.5	8110	111000	45	58
JUL							
10...	1100	402	31.5	226	245	--	--
AUG							
11...	1245	448	24.0	744	900	--	--
SEP							
10...	1510	198	21.5	170	91	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)
OCT						
13...	--	--	--	--	--	--
29...	--	--	--	--	--	--
NOV						
10...	--	--	--	--	--	--
APR						
08...	32	79	90	99	100	--
MAY						
08...	--	61	72	95	100	--
29...	58	86	93	95	99	100
JUL						
10...	--	94	97	100	--	--
AUG						
11...	--	89	89	100	--	--
SEP						
10...	--	75	81	94	100	--

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	NUMBER OF SAM-PLING POINTS (00063)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)
OCT											
13...	1130	342	3	0	4	42	82	95	98	100	--
29...	1145	418	9	0	3	36	83	95	98	100	--
NOV											
10...	1400	850	3	0	4	53	95	96	98	99	100
APR											
08...	1430	4030	3	0	2	24	59	91	98	100	--
MAY											
08...	1200	731	3	--	0	33	80	96	99	100	--
29...	1030	5070	4	--	0	13	64	84	91	98	100
JUL											
10...	1100	402	5	0	5	41	81	95	97	99	100
AUG											
11...	1245	448	19	0	5	49	80	96	98	100	--
SEP											
10...	1510	198	4	0	5	63	83	97	98	100	--

06803000 SALT CREEK AT ROCA, NE

LOCATION.--Lat 40°39'29", long 96°39'55", in NW1/4SW1/4 sec.17, T.8 N., R.7 E., Lancaster County, Hydrologic Unit 10200203, on left bank 15 ft (5 m) downstream from highway bridge at west edge of Roca.

DRAINAGE AREA.--167 mi² (433 km²).

PERIOD OF RECORD.--May 1951 to current year.

REVISED RECORDS.--WDR NE-71: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,192.50 ft (363.474 m) National Geodetic Vertical Datum of 1929, Kansas City supplementary adjustment of 1943. Prior to May 16, 1956, nonrecording gage at present site and datum.

REMARKS.--Records fair except those for winter period and periods of backwater from beaver dams, which are poor. Flood flow affected by several detention dams.

AVERAGE DISCHARGE.--29 years, 42.2 ft³/s (1.195 m³/s), 30,570 acre-ft/yr (37.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,700 ft³/s (473 m³/s) July 10, 1958, gage height, 22.70 ft (6.919 m); minimum daily, 0.2 ft³/s (0.006 m³/s) July 23, 1955.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 8, 1950, reached a stage of 26.0 ft (7.92 m), from floodmark established by Corps of Engineers, discharge, 67,000 ft³/s (1,900 m³/s), but may have been exceeded by flood of July 5, 1908.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 850 ft³/s (24.1 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 30	1500	976	27.6	10.53	3.210	June 2	1400	1180	33.4	11.46	3.493
Apr. 3	0830	*1620	45.9	13.24	4.036	Aug. 17	0830	906	25.7	10.19	3.106

Minimum daily discharge, 1.4 ft³/s (0.040 m³/s) Sept. 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	70	12	9.6	13	62	249	25	37	6.2	1.9	3.5
2	1.9	31	10	10	13	46	220	22	698	8.1	2.5	4.2
3	2.1	17	12	11	13	46	1070	20	216	8.6	2.3	3.0
4	2.3	14	12	11	14	45	408	19	103	8.9	2.3	2.5
5	2.6	12	13	10	15	39	235	18	77	8.4	2.3	2.2
6	2.8	12	13	9.4	15	39	183	16	57	7.7	1.8	2.3
7	2.9	11	13	9.6	14	40	145	14	49	7.0	2.1	2.5
8	3.1	11	12	10	14	47	117	13	37	6.2	2.1	2.8
9	3.4	11	14	11	13	108	98	13	30	4.9	1.8	3.4
10	2.3	10	11	12	13	216	83	13	27	4.4	1.6	3.1
11	3.4	9.6	10	11	14	74	82	13	21	4.3	2.4	2.7
12	3.2	9.6	8.6	12	14	57	98	12	18	4.2	3.0	2.2
13	3.6	9.6	9.3	14	14	50	81	12	17	3.8	2.1	1.8
14	3.7	9.6	9.9	13	15	51	69	11	14	4.0	2.4	1.9
15	3.6	10	11	13	15	72	62	11	13	3.4	3.0	2.0
16	4.1	10	8.0	15	14	68	52	14	10	3.2	15	2.0
17	4.1	9.9	7.0	15	14	51	52	25	9.8	2.4	287	2.3
18	4.8	9.3	8.0	14	15	41	53	23	8.8	2.8	31	3.4
19	4.8	9.3	10	14	16	36	48	20	8.8	2.3	9.5	2.9
20	4.4	9.0	11	14	19	33	44	18	8.5	2.4	5.8	2.3
21	5.4	18	11	14	35	29	40	19	8.5	2.8	4.6	2.2
22	7.2	50	10	13	150	27	37	14	9.1	3.2	3.9	2.7
23	7.7	23	10	13	140	25	33	13	11	2.5	3.6	2.9
24	7.7	17	10	14	210	23	29	13	8.7	2.4	3.3	2.0
25	8.2	15	11	14	170	21	26	13	8.2	2.3	3.5	2.3
26	7.7	15	12	14	110	20	25	12	7.7	3.4	2.8	2.2
27	6.5	14	11	14	90	23	25	11	7.3	3.4	2.8	1.7
28	6.1	11	10	13	84	25	24	9.5	6.9	3.3	2.9	1.6
29	6.5	10	10	13	80	55	23	9.7	6.6	3.0	2.5	1.4
30	48	10	9.6	12	---	641	23	14	6.2	2.5	2.7	1.4
31	428	---	9.2	12	---	440	---	19	---	2.0	3.4	---
TOTAL	604.0	477.9	328.6	384.6	1356	2550	3734	479.2	1540.1	134.0	417.9	73.4
MEAN	19.5	15.9	10.6	12.4	46.8	82.3	124	15.5	51.3	4.32	13.5	2.45
MAX	428	70	14	15	210	641	1070	25	698	8.9	287	4.2
MIN	1.9	9.0	7.0	9.4	13	20	23	9.5	6.2	2.0	1.6	1.4
AC-FT	1200	948	652	763	2690	5060	7410	950	3050	266	829	146

CAL YR 1979 TOTAL 29059.6 MEAN 79.6 MAX 2980 MIN 1.9 AC-FT 57640
WTR YR 1980 TOTAL 12079.7 MEAN 33.0 MAX 1070 MIN 1.4 AC-FT 23960

06803080 SALT CREEK ABOVE BEAL SLOUGH, AT LINCOLN, NE

LOCATION.--Lat 40°46'13", long 96°43'05", in SW1/4SW1/4 sec.2, T.9 N., R.6 E., Lancaster County, Hydrologic Unit 10200203, at county road bridge 0.9 mi (1.4 km) west of U.S. Highway 77 and of northeast corner of State Penitentiary at Lincoln.

DRAINAGE AREA.--221 mi² (572 km²).

PERIOD OF RECORD.--Water year 1971 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
OCT 16...	1045	4.8	1020	7.9	12.0	25	24	9.1	18	6.3	K140
NOV 15...	0930	5.0	815	7.9	2.0	15	17	11.2	26	1.0	77
DEC 11...	0850	14	1060	8.0	2.0	10	10	12.8	9	6.7	K80
JAN 08...	1100	10	1030	8.2	.0	5	3.5	11.3	19	4.4	K10
FEB 20...	1030	16	1070	8.1	.0	--	4.2	13.7	20	2.0	83
MAR 13...	1045	65	540	7.8	2.5	--	100	11.8	48	4.2	3300
APR 02...	1030	244	485	7.6	7.5	--	180	10.4	82	4.7	K1300
MAY 13...	1345	17	910	8.2	15.0	--	15	12.5	15	2.3	K110
JUN 14...	1315	15	660	7.9	26.5	--	75	7.2	44	4.2	3600
JUL 24...	1300	5.4	890	8.2	27.5	--	15	11.3	30	2.8	K190
AUG 12...	1020	5.2	760	8.1	22.5	--	1.0	6.1	--	8.3	K1900

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	CALCIUM TOTAL RECOV-ERABLE (MG/L AS CA) (00916)	MAGNE-SIUM, TOTAL RECOV-ERABLE (MG/L AS MG) (00927)	SODIUM, TOTAL RECOV-ERABLE (MG/L AS NA) (00929)	POTAS-SIUM, TOTAL RECOV-ERABLE (MG/L AS K) (00937)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
OCT 16...	440	80	75	84	6.3	--	--	270	120	120
NOV 15...	600	79	19	72	6.3	308	0	250	98	70
DEC 11...	170	87	21	87	5.3	324	0	260	110	130
JAN 08...	K28	86	27	48	4.7	414	0	280	130	130
FEB 20...	K160	88	23	84	3.7	336	0	280	120	120
MAR 13...	2500	56	16	39	8.3	204	0	180	64	32
APR 02...	K33000	49	16	26	9.0	168	0	138	61	23
MAY 13...	640	59	15	47	3.4	300	0	270	100	80
JUN 14...	380	66	16	39	7.6	268	0	220	64	35
JUL 24...	190	72	18	76	6.2	288	0	250	96	96
AUG 12...	2400	61	37	72	7.3	196	0	190	87	80

K Results based on colony count outside the acceptable range (non-ideal colony count).

06803080 SALT CREEK ABOVE BEAL SLOUGH, AT LINCOLN, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (00500)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT 16...	587	.80	7.61	611	.13	.07	1.7	1.8	1.9	.340
NOV 15...	547	.74	7.38	593	1.9	.26	2.2	2.5	4.4	.420
DEC 11...	644	.88	25.7	696	1.6	.28	.72	1.0	2.6	.400
JAN 08...	699	.95	20.0	680	.99	.04	.93	.97	2.0	2.900
FEB 20...	582	.79	25.9	681	1.5	.10	.62	.72	2.2	.280
MAR 13...	358	.49	62.8	569	1.2	.43	.87	1.3	2.5	.400
APR 02...	307	.42	202	1130	1.7	.38	2.3	2.7	4.4	.710
MAY 13...	558	.76	25.8	610	1.0	.10	.82	.92	1.9	.500
JUN 14...	412	.56	17.4	598	1.7	.12	1.4	1.5	3.2	.380
JUL 24...	558	.76	8.14	586	.00	.00	1.1	1.1	1.1	.310
AUG 12...	454	.62	6.37	540	2.0	--	--	--	--	.390

DATE	TIME	COLOR (PLAT-INUM COBALT UNITS) (00080)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, SUS-PENDED TOTAL (MG/L AS MG) (00926)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)
NOV 15...	0930	15	290	43	86	.0	19	70	1.8
MAR 13...	1045	45	200	23	58	2.0	14	38	1.2
MAY 13...	1345	10	330	59	94	.0	23	69	1.7
AUG 12...	1020	--	220	33	63	21	16	72	2.1

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
NOV 15...	7.8	--	25	535	1.8	.420	170	10	300
MAR 13...	8.3	.3	12	341	1.2	.210	120	60	130
MAY 13...	6.0	.3	13	553	1.0	.210	140	<10	160
AUG 12...	6.3	.4	15	458	.80	.350	100	50	320

06803080 SALT CREEK ABOVE BEAL SLOUGH, AT LINCOLN, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	PER-THANE TOTAL (UG/L) (39034)	PCB, TOTAL (UG/L) (39516)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L) (39250)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR-DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI-AZINON, TOTAL (UG/L) (39570)
NOV										
15...	0930	.00	.0	--	.00	.0	.00	.00	.00	.00
MAR										
13...	1045	.00	.0	.00	.00	.0	.00	.00	.00	.00
MAY										
13...	1345	.00	.0	.00	.00	.0	.00	.00	.00	.00
AUG										
12...	1020	.00	.0	.00	.00	.0	.00	.00	.00	.02

DATE	DI-ELDRIN TOTAL (UG/L) (39380)	ENDO-SULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	HEPTA-CHLOR, TOTAL (UG/L) (39410)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	MALA-THION, TOTAL (UG/L) (39530)	METH-OXY-CHLOR, TOTAL (UG/L) (39480)
NOV									
15...	.00	.00	.00	.00	.00	.00	.00	.00	.00
MAR									
13...	.00	.00	.00	.00	.00	.00	.00	.00	.00
MAY									
13...	.00	.00	.00	.00	.00	.00	.00	.00	.00
AUG									
12...	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	METHYL PARA-THION, TOTAL (UG/L) (39600)	METHYL TRI-THION, TOTAL (UG/L) (39790)	PARA-THION, TOTAL (UG/L) (39540)	TOX-APHENE, TOTAL (UG/L) (39400)	TOTAL TRI-THION (UG/L) (39786)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	MIREX, TOTAL (UG/L) (39755)	SILVEX, TOTAL (UG/L) (39760)
NOV									
15...	.00	.00	.00	0	.00	.03	.00	.00	.00
MAR									
13...	.00	.00	.00	0	.00	.09	.00	.00	.00
MAY									
13...	.00	.00	.00	0	.00	.05	.00	.00	.02
AUG									
12...	.00	.00	.00	0	.00	.00	.00	.00	.00

06803500 SALT CREEK AT LINCOLN, NE

LOCATION.--Lat 40°50'49", long 96°40'54", in NW1/4SW1/4 sec.7, T.10 N., R.7 E., Lancaster County, Hydrologic Unit 10200203 on right bank 135 ft (41 m) downstream from bridge on North 27th Street at north edge of Lincoln, 1 mi (2 km) downstream from Oak Creek.

DRAINAGE AREA.--684 mi² (1,772 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1949 to current year.

REVISED RECORDS.--WDR NE-71: Drainage area.

GAGE.--Water-stage recorder; nonrecording gage read twice daily. Datum of gage is 1,113.90 ft (339.517 m) National Geodetic Vertical Datum of 1929. Prior to July 27, 1979, water-stage recorder for stages above 6.2 ft (1.89 m) on downstream side of bridge pier, 135 ft (41.1 m) upstream at same datum.

REMARKS.--Records fair. Flood flow affected by several detention dams.

AVERAGE DISCHARGE.--31 years, 204 ft³/s (5.777 m³/s), 147,800 acre-ft/yr (0.182 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,200 ft³/s (799 m³/s) June 2, 1951, gage height, 26.15 ft (7.971 m); minimum daily, 21 ft³/s (0.59 m³/s) July 10, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 2, 1951, may have been equaled or exceeded in discharge by flood of July 6, 1908, which reached a stage of 33.6 ft (10.24 m). Channel changes since 1908 have materially altered the stage-discharge relation.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft³/s (85.0 m³/s) and maximum (*):

		Discharge		Gage height	
Date	Time	(ft³/s)	(m³/s)	(ft)	(m)
Oct. 31	0300	4480	127	11.38	3.469
June 2	1300	*5680	161	12.88	3.926

Minimum daily discharge, 50 ft³/s (1.42 m³/s) Sept. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	188	590	110	96	100	159	583	146	890	100	69	92
2	182	270	96	94	101	195	530	144	3130	168	81	79
3	175	201	105	92	103	197	2140	132	1290	157	61	78
4	75	173	105	96	103	186	1350	124	546	122	79	76
5	67	189	110	94	108	142	678	124	420	127	68	73
6	64	172	112	94	110	180	537	124	347	100	67	70
7	60	162	112	94	107	181	460	122	289	100	65	68
8	65	155	105	99	106	201	401	112	239	152	65	74
9	67	152	94	94	103	358	352	112	211	178	62	147
10	66	144	112	96	105	880	317	114	191	173	80	77
11	66	136	110	101	107	444	341	105	175	155	294	73
12	67	136	94	92	104	300	335	105	162	120	125	67
13	67	135	110	96	103	268	293	113	153	92	86	64
14	68	132	106	107	105	256	271	105	144	91	212	62
15	68	131	108	110	102	311	260	102	134	99	275	62
16	69	130	87	182	101	323	245	155	128	92	614	73
17	69	128	103	210	97	281	274	179	127	84	529	66
18	100	122	101	177	101	222	247	145	147	84	232	64
19	104	123	101	164	108	200	232	129	144	78	117	63
20	76	146	101	139	124	207	222	123	120	74	104	65
21	70	249	101	132	299	191	217	121	116	78	95	60
22	128	249	96	162	749	172	205	121	160	76	88	64
23	83	182	96	113	773	163	193	118	129	75	77	62
24	76	142	99	129	392	166	184	112	128	74	70	61
25	77	126	98	131	400	148	175	106	119	115	77	58
26	76	126	98	98	307	156	169	104	118	82	77	62
27	74	122	100	117	291	155	162	107	115	68	77	56
28	71	116	104	116	303	200	162	104	111	71	84	50
29	74	99	102	107	197	291	160	104	103	69	77	54
30	1050	114	100	105	---	859	150	127	102	66	112	55
31	2850	---	98	103	---	1030	---	137	---	68	209	---
TOTAL	6392	5052	3174	3640	5809	9022	11845	3776	10188	3188	4328	2075
MEAN	206	168	102	117	200	291	395	122	340	103	140	69.2
MAX	2850	590	112	210	773	1030	2140	179	3130	178	614	147
MIN	60	99	87	92	97	142	150	102	102	66	61	50
AC-FT	12680	10020	6300	7220	11520	17900	23490	7490	20210	6320	8580	4120

CAL YR 1979 TOTAL 125412 MEAN 344 MAX 7560 MIN 58 AC-FT 248800
WTR YR 1980 TOTAL 68489 MEAN 187 MAX 3130 MIN 50 AC-FT 135800

06803500 SALT CREEK AT LINCOLN, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951, 1952-54, 1968 to September 1980 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1968 to current year.
WATER TEMPERATURES: May to September 1951, October 1968 to current year.
SUSPENDED SEDIMENT DISCHARGE: March to September 1951, March 1952 to September 1954.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 37,500 micromhos Oct. 3, 1973; minimum daily, 170 micromhos Oct. 11, 1973.
WATER TEMPERATURES: Maximum, 36.5°C June 20, 1974; minimum, 0.0°C on several days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily, 41,100 mg/L Mar. 31, 1952; minimum daily not determined.
SEDIMENT LOADS: Maximum daily, 857,000 tons (780,000 tonnes) June 2, 1951; minimum daily not determined.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 7,510 micromhos Sept. 9; minimum daily, 428 micromhos June 2.
WATER TEMPERATURES: Maximum, 31.0°C July 10; minimum, 2.0°C Mar. 4.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 15...	1320	71	6900	7.9	17.0	15	13.0	38	K110	K50
NOV 13...	1530	98	4600	7.8	11.5	15	10.0	3.2	K63	K50
DEC 11...	0920	82	4550	7.8	3.0	15	9.2	22	K30	K12
JAN 10...	0835	170	7400	7.7	3.0	8	11.3	7.6	K40	K48
FEB 19...	1445	113	4720	7.9	6.0	5	13.9	8.0	K20	110
MAR 13...	1415	272	2370	7.9	11.5	55	9.9	1.6	5000	160
APR 02...	1320	645	1300	7.7	8.0	160	10.2	5.0	K64	4000
MAY 13...	1135	116	3000	7.8	15.5	8	10.7	1.8	5500	K200
JUN 12...	0800	150	3700	8.0	19.5	40	7.1	6.0	7600	800
JUL 30...	0930	58	7500	7.6	23.0	15	7.6	34	K7200	1400
AUG 13...	1230	93	3300	7.5	26.0	10	7.8	11	1000	172

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT 15...	1900	3610	4.91	692	4.7	5.800	4.2	10	15	6.100
NOV 13...	1200	2670	3.63	706	3.5	4.600	1.7	6.3	9.8	--
DEC 11...	960	2410	3.28	534	1.7	5.800	--	--	--	3.600
JAN 10...	2200	4030	5.48	1850	1.6	4.000	3.4	7.4	9.0	2.900
FEB 19...	1200	2680	3.64	818	1.6	5.500	2.4	7.9	9.5	2.900
MAR 13...	550	1350	1.84	991	.90	4.700	.00	4.5	5.4	1.600
APR 02...	240	762	1.04	1330	1.5	1.300	2.4	3.7	5.2	4.000
MAY 13...	680	1710	2.33	536	2.3	7.100	4.9	12	14	7.700
JUN 12...	950	2090	2.84	846	1.1	1.400	1.6	3.0	4.1	1.500
JUL 30...	2200	4500	6.12	705	8.4	.000	3.7	3.7	12	4.200
AUG 13...	810	1910	2.60	483	9.8	.770	2.4	3.2	13	5.600

06803500 SALT CREEK AT LINCOLN, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLOR (PLAT-INUM COBALT UNITS) (00080)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)
NOV 13...	1530	10	360	80	96	29	900	21	17	280
FEB 19...	1445	20	340	45	88	28	870	21	14	290
MAY 13...	1135	15	310	35	84	23	510	13	18	270
AUG 13...	1230	25	310	110	87	23	600	15	22	200

DATE	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)
NOV 13...	230	.7	30	2690	2.7	2.400	10	6	400	0
FEB 19...	240	.7	32	2660	1.6	2.600	--	--	--	--
MAY 13...	200	.8	38	1730	2.3	6.600	50	5	300	0
AUG 13...	220	1.0	25	1950	9.5	5.600	--	--	--	--

DATE	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
NOV 13...	410	1	8	0	3	30	0	90	310
FEB 19...	390	--	--	--	--	60	--	--	330
MAY 13...	410	1	0	1	8	50	0	70	210
AUG 13...	430	--	--	--	--	90	--	--	130

DATE	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	CYANIDE TOTAL (MG/L AS CN) (00720)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L) (38260)
NOV 13...	.1	4	3	1	830	--	20	--	.10
FEB 19...	--	--	--	--	--	--	--	--	--
MAY 13...	.2	4	3	2	660	93	130	.02	.20
AUG 13...	--	--	--	--	--	--	--	--	--

06803500 SALT CREEK AT LINCOLN, NE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1850	1510	4080	4100	4400	3050	984	3000	1070	3780	3580	3010
2	1970	2230	4300	4230	4080	2500	1290	3000	428	2350	3790	3020
3	2030	3130	4560	4300	4000	2900	554	2700	845	2160	3540	2790
4	4420	4120	4420	4550	4300	2900	804	3100	1350	3360	3540	3240
5	6990	3700	4380	4700	4210	2860	1270	3130	1670	3390	3920	2680
6	6700	4150	4100	4830	4100	2900	1330	2920	1880	4120	3710	2170
7	6800	4340	3910	5100	4000	3180	1540	3030	2300	4250	3860	2140
8	7200	4390	3690	4900	3950	3220	1750	2890	2620	2210	4300	2140
9	7510	4320	4370	5000	4130	1900	1930	3420	2800	2220	4060	2560
10	6990	4200	4170	5000	4090	905	2130	3200	3020	2290	3640	3240
11	6990	4400	4400	4550	4000	1650	1500	3480	3190	2510	3050	3310
12	7100	4500	4810	4000	4050	2300	1850	3450	3100	3320	3050	2600
13	6250	4540	4240	4200	4130	2540	2170	2800	3350	4190	3780	3150
14	6500	4500	4160	3850	4000	2340	2370	3480	3600	4180	2040	4320
15	6600	4640	4150	4100	4000	2100	2440	3000	3810	3220	2060	5490
16	6690	4490	6000	1850	3790	2050	2660	2040	3700	4020	1940	2920
17	6500	4230	4690	2550	4140	2400	2270	2320	4000	4190	1290	3540
18	6250	4390	4980	2420	4140	2710	2420	2700	3700	4890	2300	4420
19	4680	4300	4600	2680	4140	2900	2480	3050	3900	3480	2300	4100
20	4180	2950	4500	2780	3990	2610	2550	3310	4100	5280	2870	2300
21	3280	1600	4400	3550	1850	2810	2640	3310	4100	4190	3060	3000
22	2340	2320	4280	2160	1030	2840	2740	3300	3650	4280	3230	4130
23	4320	2810	4500	4450	1090	3090	2780	3350	3760	3980	3240	3340
24	4990	3690	4300	3700	1700	3090	2880	3900	3950	3890	3190	3980
25	4990	3960	4220	3800	1850	3210	3000	4300	4080	4050	3000	4300
26	4980	3730	4150	5300	1920	2750	2620	3800	4080	4190	2990	3590
27	4930	3800	4070	3550	2050	3090	2780	3650	4100	4190	3710	2780
28	5360	4100	3900	4200	2060	2320	2820	3450	4250	3280	3790	4170
29	5500	3880	3860	4550	3050	2040	2960	3340	4900	3320	4100	4210
30	615	4010	3800	4450	---	910	2870	3850	4400	3720	3230	3500
31	603	---	4040	4450	---	790	---	1800	---	3820	3030	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	10.0	8.0	6.0	5.5	4.5	9.0	19.0	19.0	26.5	26.5	24.5
2	21.0	12.0	8.0	5.5	8.0	5.5	9.0	20.0	20.0	23.5	24.5	24.5
3	19.0	11.0	9.0	5.5	8.0	6.5	5.5	20.0	22.0	24.5	24.5	26.5
4	19.0	12.0	10.0	5.0	5.5	2.0	9.5	21.0	24.5	28.0	23.5	24.5
5	19.0	10.0	10.0	5.0	5.5	4.5	10.0	22.0	26.5	25.5	24.5	25.5
6	19.0	9.0	10.0	5.5	6.5	5.5	14.5	21.0	28.0	26.5	25.5	26.5
7	21.0	9.0	10.0	5.5	5.5	8.0	15.5	19.0	22.0	30.0	25.5	25.5
8	19.0	9.5	9.0	5.5	5.5	10.0	12.0	19.0	22.0	30.0	26.5	25.5
9	16.5	8.0	5.5	5.5	6.5	9.0	14.5	16.5	24.5	30.0	26.5	21.0
10	16.5	9.0	5.5	6.0	6.5	4.5	15.5	21.0	25.5	31.0	26.5	23.5
11	20.0	10.0	5.5	6.5	4.5	6.5	11.0	18.0	24.5	29.0	26.5	24.5
12	15.5	8.5	6.5	9.0	5.5	6.5	13.5	16.5	23.5	24.5	26.5	26.5
13	16.5	10.0	8.0	8.0	6.5	10.0	12.0	18.0	26.5	25.5	28.0	24.5
14	18.0	11.0	9.0	10.0	6.5	13.5	13.5	18.0	24.0	29.0	22.0	21.0
15	21.0	12.0	11.0	10.0	4.5	10.0	15.5	20.0	21.0	26.5	21.0	24.5
16	20.0	13.5	4.5	6.5	6.5	10.0	13.5	16.0	21.0	26.5	26.5	19.0
17	20.0	14.5	6.5	6.5	5.5	12.0	14.5	17.5	25.5	26.5	25.5	21.0
18	19.0	15.5	9.0	9.0	6.5	13.5	16.5	19.0	25.5	26.5	26.5	23.5
19	20.0	14.5	10.0	6.5	8.0	14.5	20.0	20.0	20.0	26.5	26.5	24.5
20	22.0	11.0	10.0	9.0	9.0	13.5	21.0	21.0	23.5	24.5	26.5	24.5
21	17.0	10.0	10.0	9.0	4.5	13.5	21.0	22.0	24.5	25.5	25.5	24.5
22	13.5	8.0	10.0	8.0	3.5	13.5	21.0	21.0	23.5	24.5	24.5	21.0
23	15.5	10.0	9.0	9.0	3.5	9.0	19.0	21.0	25.5	25.5	24.5	21.0
24	16.5	10.0	8.0	10.0	8.0	10.0	18.0	23.5	26.5	25.5	25.5	21.0
25	16.5	9.5	8.0	8.0	8.0	10.0	18.0	25.5	28.0	23.5	26.5	21.0
26	18.0	10.0	8.0	6.5	8.5	9.0	14.5	22.0	29.0	23.5	25.5	21.0
27	19.0	10.0	7.5	6.5	9.0	10.0	18.0	23.5	29.0	24.5	23.5	22.0
28	16.5	5.5	7.5	4.5	4.5	10.0	19.0	22.0	21.5	25.5	24.5	21.0
29	16.5	6.5	7.0	4.5	2.0	9.0	19.0	23.5	24.5	26.5	26.5	21.0
30	13.5	6.5	6.5	4.5	---	6.5	19.0	22.0	25.5	24.5	24.5	23.5
31	10.0	---	6.5	4.5	---	9.0	---	21.0	---	25.5	25.5	---

06803510 LITTLE SALT CREEK NEAR LINCOLN, NE

LOCATION.--Lat 40°53'36", long 96°40'52", in NW1/4SW1/4 sec.30, T.11 N., R.7 E., Lancaster County, Hydrologic Unit 10200203, on left bank 10 ft (3 m) downstream from county road bridge and 0.4 mi (0.6 km) north of intersection of Interstate Highway 80 and North 27th Street north of Lincoln.

DRAINAGE AREA.--43.6 mi² (112.9 km²).

PERIOD OF RECORD.--January 1969 to current year.

REVISED RECORDS.--WDR NE-77-1: 1969-73(M).

GAGE.--Water-stage recorder. Datum of gage is 1,117.73 ft (340.684 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except those for winter period, which are poor.

AVERAGE DISCHARGE.--11 years, 11.5 ft³/s (0.326 m³/s), 8,330 acre-ft/yr (10.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,320 ft³/s (94.0 m³/s) May 2, 1979, gage height, 11.45 ft (3.490 m); maximum gage height, 13.38 ft (4.078 m) Oct. 11, 1973, backwater from Salt Creek; minimum daily discharge, 0.20 ft³/s (0.006 m³/s) Sept. 29, 30, 1969.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s (14.2 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Oct. 30	2230	640	18.1	6.11	1.862	June 2	0800	*3190	90.3	11.27	3.435
June 1	0500	1770	50.1	9.13	2.783	Aug. 14	1300	591	16.7	5.72	1.743

Minimum daily discharge, 0.73 ft³/s (0.021 m³/s) Oct. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.79	13	6.8	6.0	4.0	8.6	18	7.3	414	2.9	2.0	4.8
2	.73	7.3	6.4	5.5	4.4	11	20	6.0	658	3.7	2.1	2.9
3	.79	6.3	6.2	5.0	4.2	12	134	5.6	55	3.4	1.8	3.0
4	.79	5.8	6.3	5.1	4.6	11	25	5.6	30	3.2	2.0	2.8
5	.79	8.4	6.5	5.0	4.9	11	18	5.4	17	3.1	1.8	2.8
6	.91	8.1	5.9	4.9	4.7	12	15	5.1	9.1	2.7	1.8	2.6
7	1.7	6.8	5.8	4.4	4.7	11	14	4.9	7.7	2.8	1.7	2.5
8	1.7	6.5	5.1	3.7	4.5	36	12	4.9	7.0	2.9	1.7	2.5
9	1.7	6.0	5.0	3.2	4.1	71	11	5.1	6.2	2.5	1.7	2.4
10	1.7	5.8	5.9	4.5	5.2	35	10	5.4	6.1	2.5	1.8	2.3
11	1.7	5.8	5.4	3.8	5.0	14	12	4.8	5.9	2.3	28	2.3
12	1.7	5.8	5.6	3.8	4.8	13	12	4.4	6.0	2.4	3.6	2.3
13	1.7	5.6	6.0	4.1	5.6	13	10	4.5	5.6	2.3	2.4	2.3
14	1.7	5.4	5.8	4.7	6.0	29	9.0	3.9	5.0	2.5	131	2.2
15	1.7	5.4	5.8	5.4	5.8	25	8.7	3.8	5.1	2.6	19	2.2
16	1.7	5.7	5.8	5.6	5.4	19	8.1	5.9	4.3	2.3	151	2.3
17	1.7	5.5	5.8	5.4	5.0	13	10	12	4.4	2.2	21	2.2
18	1.9	5.6	5.8	6.0	5.8	11	9.5	6.9	4.8	2.2	5.0	2.2
19	4.7	5.8	5.6	6.2	6.0	11	8.6	5.7	4.8	2.1	3.5	2.1
20	3.7	6.1	5.5	6.5	7.4	11	7.7	4.3	4.5	2.0	7.5	2.1
21	2.3	14	5.4	5.8	106	9.9	7.0	4.1	4.7	1.8	5.5	2.0
22	3.0	13	5.4	5.1	108	9.9	6.7	3.9	5.7	1.8	4.8	1.9
23	2.6	8.7	5.7	4.8	43	9.7	6.4	3.8	5.2	1.9	3.2	1.9
24	2.0	7.8	5.5	5.2	23	9.2	6.4	3.6	4.5	1.9	2.2	1.9
25	2.2	7.4	5.1	6.4	17	9.9	6.7	3.5	3.9	2.0	2.4	1.8
26	2.3	7.5	5.6	7.4	15	11	6.8	3.4	3.8	2.2	2.3	1.8
27	2.2	7.0	5.6	6.0	13	12	6.3	3.5	3.1	2.1	2.5	1.8
28	2.2	6.8	5.7	5.4	13	15	6.3	3.5	2.9	2.0	2.5	1.7
29	2.0	7.0	5.6	5.6	12	21	6.5	4.0	3.0	2.0	2.4	1.7
30	172	6.8	6.2	4.0	---	31	7.5	3.9	2.9	1.9	3.2	1.5
31	111	---	6.3	3.0	---	19	---	6.0	---	2.0	17	---
TOTAL	337.60	216.7	179.1	157.5	452.1	535.2	439.2	154.7	1300.2	74.2	438.4	68.8
MEAN	10.9	7.22	5.78	5.08	15.6	17.3	14.6	4.99	43.3	2.39	14.1	2.29
MAX	172	14	6.8	7.4	108	71	134	12	658	3.7	151	4.8
MIN	.73	5.4	5.0	3.0	4.0	8.6	6.3	3.4	2.9	1.8	1.7	1.5
AC-FT	670	430	355	312	897	1060	871	307	2580	147	870	136

CAL YR 1979 TOTAL 7947.74 MEAN 21.8 MAX 894 MIN .73 AC-FT 15760
WTR YR 1980 TOTAL 4353.70 MEAN 11.9 MAX 658 MIN .73 AC-FT 8640

06803520 STEVENS CREEK NEAR LINCOLN, NE

LOCATION.--Lat 40°51'25", long 96°35'42", in NW1/4NE1/4 sec.11, T.10 N., R.7 E., Lancaster County, Hydrologic Unit 10200203, on left bank 20 ft (6 m) upstream from county road bridge on Havelock Avenue and 1.6 mi (2.6 km) east of 70th Street at east edge of Lincoln.

DRAINAGE AREA.--47.8 mi^2 (123.8 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,125.57 ft (343.074 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--12 years, 13.1 ft^3/s (0.37[illegible] m^3/s), 9,490 acre-ft/yr (11.7 hm^3/yr); median of yearly mean discharges, 8.4 ft^3/s (0.238 m^3/s), 6,080 acre-ft/yr (7.50 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,120 ft^3/s (88.4 m^3/s) July 22, 1978, gage height, 17.01 ft (5.185 m) on basis of indirect measurement of peak flow; maximum gage height, 17.03 ft (5.191 m) Oct. 10, 1974; no flow July 31, Aug. 2-4, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft^3/s (14.2 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Apr. 3	1000	500	14.2	6.44	1.963	Aug. 17	0930	*1220	34.6	10.34	3.152
June 2	1300	955	27.0	9.06	2.761						

Minimum daily discharge, 0.20 ft^3/s (0.006 m^3/s) Aug. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.36	7.7	1.8	1.7	1.6	4.0	24	5.6	39	1.0	.32	1.0
2	.30	1.8	1.7	1.8	1.9	4.2	25	5.4	336	1.2	.48	.80
3	.55	1.2	1.8	1.8	1.8	4.5	237	5.0	45	1.2	.48	.66
4	.49	1.2	2.1	1.9	2.0	5.4	49	4.7	14	1.5	.34	.64
5	.55	1.4	2.1	1.8	2.1	4.5	28	4.3	8.3	9.8	.30	.64
6	.58	2.0	2.1	1.7	1.9	4.5	23	4.2	6.1	2.4	.30	.55
7	.58	1.6	2.0	1.6	1.9	6.4	20	3.5	4.8	1.1	.26	.58
8	.58	1.5	1.9	1.2	1.8	19	16	3.1	3.4	.78	.26	.62
9	.55	1.6	2.0	1.1	1.7	55	14	3.3	2.7	.78	.20	.62
10	.65	1.7	2.2	1.4	2.2	44	13	4.0	2.7	.68	.32	.47
11	.62	1.6	1.8	1.6	2.0	13	15	3.3	2.5	.68	2.4	.50
12	.62	1.7	1.5	1.7	1.9	12	23	3.0	2.2	.57	.95	.47
13	.72	1.8	1.6	1.8	2.3	9.0	14	3.3	2.1	.60	.62	.38
14	.76	1.8	1.6	2.0	2.4	13	13	3.2	2.0	.57	1.5	.35
15	.76	1.8	1.7	2.4	2.5	31	12	2.7	1.9	.48	2.6	.38
16	1.1	1.8	1.4	2.3	2.6	26	11	3.4	1.8	.51	27	.30
17	.90	1.8	1.3	2.4	2.7	14	13	6.8	1.6	.44	462	.34
18	1.2	1.8	1.4	3.8	2.9	9.6	16	5.9	1.5	.44	23	.26
19	3.2	1.6	1.6	3.5	3.0	8.4	13	5.4	1.7	.44	3.5	.34
20	1.2	1.6	1.7	3.6	7.1	7.6	11	4.3	1.7	.36	1.7	.28
21	1.0	4.3	1.9	3.3	29	5.8	9.6	3.7	1.6	.36	1.1	.26
22	1.2	12	1.9	3.1	70	5.3	8.4	3.1	1.7	.36	.88	.28
23	1.6	4.1	2.0	2.8	60	5.1	7.2	3.1	2.8	.32	.73	.28
24	1.2	2.7	2.0	3.2	26	4.8	6.8	2.5	2.2	.34	.64	.28
25	.95	2.3	1.9	3.4	23	4.3	6.6	2.2	1.6	.48	.60	.32
26	1.0	2.4	1.9	3.3	24	4.3	6.6	2.1	1.4	.57	.60	.28
27	1.1	2.3	1.9	2.7	20	6.1	6.4	1.9	1.4	.44	.80	.32
28	1.0	2.1	2.0	2.2	19	7.5	6.5	1.7	1.2	.36	.70	.34
29	1.0	1.9	2.0	2.0	9.0	15	6.4	1.8	1.2	.30	.60	.32
30	24	1.9	2.1	1.6	---	70	5.8	2.0	1.1	.26	1.3	.42
31	84	---	2.1	1.4	---	48	---	2.0	---	.26	1.8	---
TOTAL	134.32	75.0	57.0	70.1	328.3	471.3	660.3	110.5	497.2	29.58	538.28	13.28
MEAN	4.33	2.50	1.84	2.26	11.3	15.2	22.0	3.56	16.6	.95	17.4	.44
MAX	84	12	2.2	3.8	70	70	237	6.8	336	9.8	462	1.0
MIN	.30	1.2	1.3	1.1	1.6	4.0	5.8	1.7	1.1	.26	.20	.26
AC-FT	266	149	113	139	651	935	1310	219	986	59	1070	26

CAL YR 1979 TOTAL 8025.09 MEAN 22.0 MAX 1390 MIN .30 AC-FT 15920
WTR YR 1980 TOTAL 2985.16 MEAN 8.16 MAX 462 MIN .20 AC-FT 5920

06803520 STEVENS CREEK NEAR LINCOLN, NE.--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1979-80.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPERATURE, WATER (DEG C) (00010)	COLOR (PLATINUM COBALT UNITS) (00080)	TURBIDITY (JTU) (00070)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L) (00310)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)
NOV										
14...	1430	12	685	7.9	4.0	15	20	10.3	3.2	K560
FEB										
19...	1345	3.1	728	7.8	.5	10	6	16.1	2.3	K15
MAY										
13...	1045	3.3	712	7.8	12.5	20	25	8.8	1.4	590
AUG										
12...	1245	1.2	545	7.8	25.0	--	150	4.5	9.2	7300

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)
NOV										
14...	>400	300	20	87	20	41	1.0	7.7	280	70
FEB										
19...	800	310	10	88	22	50	1.2	4.1	300	73
MAY										
13...	3000	290	0	78	22	48	1.2	4.7	290	71
AUG										
12...	10000	170	0	45	13	35	1.2	11	190	48

DATE	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)
NOV									
14...	13	.3	26	448	445	.61	15.1	2.5	2.4
FEB									
19...	15	.3	24	463	469	.63	3.88	2.6	2.6
MAY									
13...	24	.3	14	461	442	.63	4.14	1.0	1.1
AUG									
12...	11	.3	15	309	303	.42	1.00	--	2.3

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
NOV									
14...	.30	1.1	1.4	3.9	.340	.260	90	<10	670
FEB									
19...	.25	1.7	1.9	4.5	.250	.200	70	20	790
MAY									
13...	.23	.97	1.2	2.2	.290	.200	90	<10	560
AUG									
12...	--	--	--	--	--	.020	80	50	320

06803525 SALT CREEK BELOW STEVENS CREEK, NEAR WAVERLY, NE

LOCATION.--Lat 40°54'18", long 96°35'09", in NW1/4SW1/4 sec.24, T.11 N., R.7 E., Lancaster County, Hydrologic Unit 10200203, at bridge 0.5 mi (0.8 km) north of Interstate Highway 80 and 3 mi (5 km) southwest of Waverly.

DRAINAGE AREA.--815 mi² (2,110 km²).

PERIOD OF RECORD.--Water year 1971 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
OCT 16...	1200	58	7400	7.8	15.0	10	8.5	8.1	82	17	200
NOV 14...	1330	66	5800	7.8	6.5	15	17	10.0	80	5.4	230
DEC 11...	1000	100	5650	7.8	3.0	15	8.1	8.7	260	21	K20
JAN 09...	1300	170	6700	7.7	.0	--	13	9.8	43	6.0	K100
FEB 06...	1110	122	5640	7.8	1.5	7	5.2	10.0	48	12	K370
MAR 13...	1300	300	2750	7.7	6.0	--	75	11.1	46	6.0	2000
APR 02...	1235	670	1480	7.7	7.5	--	160	10.0	70	5.2	K400
MAY 13...	1000	120	5880	7.7	12.0	--	7.2	6.5	120	3.6	730
JUN 14...	1130	160	4320	7.7	26.0	--	30	5.7	74	13	1100
JUL 25...	0900	72	7000	7.8	23.5	--	9.4	5.3	81	17	22000
AUG 13...	1200	100	5500	7.6	25.0	--	39	5.3	73	18	K13000

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	CALCIUM TOTAL RECOV-ERABLE (MG/L AS CA) (00916)	MAGNE-SIUM, TOTAL RECOV-ERABLE (MG/L AS MG) (00927)	SODIUM, TOTAL RECOV-ERABLE (MG/L AS NA) (00929)	POTAS-SIUM, TOTAL RECOV-ERABLE (MG/L AS K) (00937)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
OCT 16...	240	89	32	1500	20	--	--	290	--	2100
NOV 14...	K180	82	26	930	16	356	0	140	290	1600
DEC 11...	K8	85	26	890	12	376	0	320	340	1500
JAN 09...	K67	88	28	390	12	408	0	310	330	1700
FEB 06...	K60	87	28	940	12	368	0	310	260	1500
MAR 13...	120	69	22	500	13	256	0	210	180	690
APR 02...	1100	61	19	200	9.3	232	0	190	100	290
MAY 13...	K56	72	23	780	11	348	0	280	300	1600
JUN 14...	1100	74	22	680	12	312	0	256	240	1200
JUL 25...	620	81	29	1400	21	300	0	260	390	2200
AUG 13...	4200	78	24	960	17	244	0	210	280	1500

K Results based on colony count outside the acceptable range (non-ideal colony count).

06803525 SALT CREEK BELOW STEVENS CREEK, NEAR WAVERLY, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (00500)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)
OCT 16...	4090	5.56	641	4530	2.3	3.9	1.0	4.9	7.2	3.600
NOV 14...	3380	4.60	602	3410	2.5	2.8	1.7	4.5	7.0	1.900
DEC 11...	3230	4.39	872	3260	1.9	4.5	.20	4.7	6.6	3.200
JAN 09...	3880	5.28	1780	3790	1.8	3.9	5.2	9.1	11	2.900
FEB 06...	3220	4.38	1060	3260	1.5	3.6	4.0	7.6	9.1	2.200
MAR 13...	1630	2.22	1320	1760	1.1	1.3	.60	1.9	3.0	.870
APR 02...	835	1.14	1510	1510	1.6	.54	2.2	2.7	4.3	.760
MAY 13...	3350	4.56	1090	3380	1.6	2.9	1.3	4.2	5.8	3.000
JUN 14...	2590	3.52	1120	2790	1.6	1.2	1.5	2.7	4.3	1.600
JUL 25...	4360	5.93	848	4440	3.1	1.9	1.9	3.8	6.9	3.800
AUG 13...	3110	4.23	840	3320	3.9	.90	2.5	3.4	7.3	2.300

DATE	TIME	COLOR (PLATINUM COBALT UNITS) (00080)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, SUSPENDED TOTAL (MG/L AS MG) (00926)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)
NOV 14...	1330	10	370	230	100	.0	30	1100	25
MAR 13...	1300	180	270	61	74	1.0	21	500	13
MAY 13...	1000	5	380	99	99	.0	32	1100	25
AUG 13...	1200	45	330	120	88	.0	26	1000	24

06803525 SALT CREEK BELOW STEVENS CREEK, NEAR WAVERLY, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
NOV 14...	18	.7	28	3260	2.4	1.900	530	20	340
MAR 13...	12	.4	14	1620	1.1	.570	280	50	130
MAY 13...	16	.6	25	3350	1.6	2.400	530	40	450
AUG 13...	24	.8	16	3060	.00	2.300	500	50	200

DATE	TIME	PER-THANE TOTAL (UG/L) (39034)	PCB, TOTAL (UG/L) (39516)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L) (39250)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR-DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI-AZINON, TOTAL (UG/L) (39570)
NOV 14...	1330	.00	.0	--	.00	.0	.00	.00	.00	.04
MAR 13...	1300	.00	.0	.00	.00	.0	.00	.00	.00	.02
MAY 13...	1000	.00	.0	.00	.00	.0	.00	.00	.00	.11
AUG 13...	1200	.00	.0	.00	.00	.0	.00	.00	.00	.18

DATE	DI-ELDRIN TOTAL (UG/L) (39380)	ENDO-SULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	HEPTA-CHLOR, TOTAL (UG/L) (39410)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	MALA-THION, TOTAL (UG/L) (39530)	METH-OXY-CHLOR, TOTAL (UG/L) (39480)
NOV 14...	.00	.00	.00	.00	.00	.00	.12	.02	.00
MAR 13...	.00	.00	.00	.00	.00	.00	.00	.01	.00
MAY 13...	.00	.00	.00	.00	.00	.00	.01	.05	.00
AUG 13...	.00	.00	.00	.00	.00	.00	.01	.01	.00

DATE	METHYL PARA-THION, TOTAL (UG/L) (39600)	METHYL TRI-THION, TOTAL (UG/L) (39790)	PARA-THION, TOTAL (UG/L) (39540)	TOX-APHENE, TOTAL (UG/L) (39400)	TOTAL TRI-THION (UG/L) (39786)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	MIREX, TOTAL (UG/L) (39755)	SILVEX, TOTAL (UG/L) (39760)
NOV 14...	.00	.00	.00	0	.00	.07	.00	.00	.01
MAR 13...	.00	.00	.00	0	.00	.11	.01	.00	.00
MAY 13...	.00	.00	.00	0	.00	.65	.02	.00	.00
AUG 13...	.00	.00	.01	0	.00	.45	.00	.00	.02

06803530 ROCK CREEK NEAR CERESCO, NE

LOCATION.--Lat 41°00'56", long 96°32'39", in NE1/4NE1/4 sec.17, T.12 N., R.8 E., Lancaster County, Hydrologic Unit 10200203, on right bank 10 ft (3 m) downstream from bridge on east-west county road and 5.7 mi (9.2 km) southeast of Ceresco.

DRAINAGE AREA.--119 mi² (308 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1970 to current year.

REVISED RECORDS.--WDR NE-76-1: 1975(M).

GAGE.--Water-stage recorder. Datum of gage is 1,112.18 ft (338.992 m) National Geodetic Vertical Datum of 1929. Prior to Feb. 6, 1981 at datum 3.0 ft (0.91 m) higher.

REMARKS.--Records fair except those for winter period, which are poor.

AVERAGE DISCHARGE.--10 years, 27.7 ft³/s (0.784 m³/s), 20,070 acre-ft/yr (24.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,120 ft³/s (117 m³/s) May 1, 1972, gage height, 17.2 ft (5.24 m), present datum, from floodmark; minimum daily, 0.25 ft³/s (0.007 m³/s) July 13, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 850 ft³/s (24.1 m³/s) (revised) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Oct. 31	0330	1240	35.1	7.61	2.320	June 1	1030	1700	48.1	11.19	3.411
Mar. 9	2230	973	27.6	9.08	2.768	June 2	1330	*2040	57.8	11.52	3.511

Minimum daily discharge, 2.3 ft³/s (0.065 m³/s) Aug. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.4	50	7.9	12	8.6	19	29	11	889	8.4	3.0	9.6
2	8.0	17	7.1	10	9.0	20	33	11	1050	9.4	2.3	6.2
3	9.2	12	8.3	10	8.8	22	291	11	210	9.9	2.8	5.8
4	9.1	11	9.5	10	9.0	21	61	11	99	9.5	2.8	5.6
5	9.1	19	9.5	11	9.8	20	35	10	25	8.9	3.1	5.4
6	9.4	21	8.7	12	9.0	23	28	10	18	8.1	3.6	6.3
7	9.5	14	10	14	9.0	24	25	9.7	16	7.2	3.6	5.2
8	9.8	13	8.6	15	9.0	40	21	9.4	14	6.0	3.4	5.6
9	8.7	12	9.4	14	8.4	361	20	9.5	12	5.3	2.4	5.9
10	8.0	11	10	14	9.2	269	19	9.9	12	5.0	2.5	6.1
11	10	11	9.8	13	8.8	52	20	9.3	11	4.7	283	5.9
12	9.7	11	9.4	13	8.4	31	22	9.1	10	4.9	19	6.2
13	8.7	11	11	12	8.8	26	17	9.3	10	5.4	7.0	6.2
14	9.1	11	11	12	9.4	122	16	9.3	10	4.6	92	5.9
15	9.7	11	11	12	9.2	189	16	9.1	23	4.3	33	6.4
16	11	11	9.4	13	8.6	83	15	11	13	6.6	356	6.9
17	8.8	11	14	12	8.2	30	17	17	11	5.5	27	6.9
18	11	11	14	12	9.2	24	17	13	12	5.4	9.7	7.4
19	22	11	15	11	9.6	22	16	12	45	4.5	7.5	7.4
20	11	11	14	10	10	21	15	11	12	3.3	15	7.4
21	8.7	32	14	9.8	200	19	14	10	10	3.6	14	8.1
22	14	40	14	9.4	560	18	13	10	25	3.5	7.5	8.0
23	14	17	15	9.2	280	18	13	10	15	2.9	6.1	6.9
24	10	14	15	9.6	60	17	12	10	11	3.4	5.6	6.7
25	9.8	14	14	9.4	66	17	12	10	9.7	3.9	5.6	7.1
26	8.6	14	14	9.0	34	17	12	10	9.7	5.4	5.6	7.4
27	8.9	13	15	9.4	32	21	12	9.8	9.5	5.7	11	7.5
28	8.7	8.0	15	11	33	23	11	9.1	9.1	5.5	16	7.4
29	8.7	8.4	14	10	20	39	11	9.0	8.8	5.1	6.6	8.2
30	345	9.1	15	9.7	---	58	11	9.4	8.8	4.3	6.1	8.5
31	650	---	14	8.0	---	37	---	11	---	3.6	21	---
TOTAL	1287.6	459.5	366.6	346.5	1465.0	1703	854	320.9	2618.6	173.8	983.8	204.1
MEAN	41.5	15.3	11.8	11.2	50.5	54.9	28.5	10.4	87.3	5.61	31.7	6.80
MAX	650	50	15	15	560	361	291	17	1050	9.9	356	9.6
MIN	8.0	8.0	7.1	8.0	8.2	17	11	9.0	8.8	2.9	2.3	5.2
AC-FT	2550	911	727	687	2910	3380	1690	637	5190	345	1950	405

CAL YR 1979 TOTAL 15231.2 MEAN 41.7 MAX 1680 MIN 3.7 AC-FT 30210
WTR YR 1980 TOTAL 10783.4 MEAN 29.5 MAX 1050 MIN 2.3 AC-FT 21390

06803530 ROCK CREEK NEAR CERESCO, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970-80.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	COLOR (PLAT-INUM COBALT UNITS) (00080)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
NOV 13...	1430	12	1600	8.1	2.0	10	35	12.9	2.8	390
FEB 19...	1030	9.5	1360	7.9	.0	5	15	14.2	3.3	1800
MAY 14...	1250	9.7	1260	8.4	15.0	15	20	14.4	2.8	K500
AUG 13...	1000	5.7	819	7.6	23.0	110	540	5.9	6.4	7300

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
NOV 13...	1140	310	23	89	22	210	5.2	9.9	290	140
FEB 19...	460	290	0	82	20	180	4.6	5.7	290	110
MAY 14...	120	260	0	71	20	160	4.3	6.7	270	120
AUG 13...	22000	130	17	35	9.6	110	4.3	12	110	77

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
NOV 13...	250	.4	31	917	959	1.25	30.2	2.5	2.5
FEB 19...	190	.4	31	808	803	1.10	20.9	2.0	2.0
MAY 14...	170	.4	19	736	733	1.00	19.3	.70	.70
AUG 13...	130	.5	10	472	461	.64	7.35	2.5	2.3

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
NOV 13...	.35	.95	1.3	3.8	.390	.260	240	20	680
FEB 19...	.47	2.2	2.7	4.7	.330	.280	230	20	890
MAY 14...	.07	1.0	1.1	1.8	.280	.190	240	30	360
AUG 13...	.41	.22	.63	3.1	.840	.240	250	--	--

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE, WATER (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)
APR 04...	1100	55	7.0	978	145	--	--	--	100	--	--	--
JUN 02...	1145	2000	18.0	17900	96700	45	54	70	96	98	99	100

06803555 SALT CREEK AT GREENWOOD, NE

LOCATION.--Lat 40°57'56", long 96°27'01", at center of sec.31, T.12 N., R.9 E., Cass County, Hydrologic Unit 10200203, on right bank just downstream from county road bridge, 0.5 mi (0.8 km) west of Greenwood.

DRAINAGE AREA.--1,051 mi^2 (2,722 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1951 to current year. Records furnished by Corps of Engineers prior to Oct. 1, 1972.

REVISED RECORDS.--WDR NE-71: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,068.14 ft (325.569 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 5, 1964, nonrecording gage at same site and datum.

REMARKS.—Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--28 years (water years 1953-80), 279 ft^3/s (7.901 m^3/s), 202,100 acre-ft/yr (0.249 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41,000 ft^3/s (1,160 m^3/s) June 24, 1963, gage height, 23.46 ft (7.151 m); maximum gage height, 23.50 ft (7.163 m) Oct. 11, 1973, from floodmark; minimum daily discharge, 14 ft^3/s (0.40 m^3/s) Jan. 10, 1957.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft^3/s (85.0 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Oct. 31	0700	7370	209	11.05	3.368	June 2	1415	*11200	317	13.28	4.048
Apr. 3	1330	4330	123	8.71	2.655	Aug. 17	0600	5490	155	9.67	2.947

Minimum daily discharge, 68 ft^3/s (1.93 m^3/s) Sept. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	222	1190	130	128	140	260	797	194	2670	134	90	189
2	212	423	135	117	160	300	733	188	6610	186	103	117
3	209	314	141	120	150	300	3100	180	2270	209	93	112
4	149	243	143	127	160	280	2000	170	845	189	83	107
5	91	261	144	115	170	240	951	169	587	171	89	103
6	89	246	146	121	155	280	718	166	478	145	87	99
7	87	219	152	105	150	280	612	161	394	121	83	91
8	83	199	142	100	150	310	529	152	318	125	77	89
9	87	189	135	125	140	600	466	151	265	176	76	192
10	89	182	138	160	150	1660	415	148	243	171	88	110
11	89	171	142	150	150	826	427	144	222	166	760	90
12	87	162	125	150	140	476	462	140	199	141	248	82
13	87	162	133	165	150	405	402	147	192	112	132	80
14	91	164	134	160	160	407	365	139	185	93	570	78
15	89	160	131	170	150	763	337	134	184	97	444	76
16	89	166	100	213	150	611	314	164	168	103	1850	76
17	87	169	114	329	140	456	353	304	166	91	2500	74
18	87	162	125	306	170	354	349	208	162	87	650	72
19	176	148	140	271	220	313	310	176	305	85	245	72
20	112	157	135	213	350	313	294	156	174	79	191	72
21	93	310	135	184	420	299	279	147	158	80	200	72
22	145	381	131	207	1940	268	265	146	213	80	165	72
23	157	257	134	173	2000	252	250	139	195	78	149	73
24	112	182	130	160	760	251	235	135	173	81	142	75
25	103	160	127	180	540	242	225	127	161	87	131	70
26	101	155	120	170	450	243	215	120	154	149	131	79
27	99	153	124	160	400	272	216	121	150	96	132	81
28	97	144	126	150	380	279	206	119	145	89	140	70
29	97	137	129	140	410	410	204	117	136	91	122	68
30	962	140	136	140	---	1000	195	153	129	90	143	73
31	5010	---	144	130	---	1440	---	128	---	89	322	---
TOTAL	9288	7106	4121	5139	10605	14390	16224	4843	18251	3691	10236	2714
MEAN	300	237	133	166	366	464	541	156	608	119	330	90.5
MAX	5010	1190	152	329	2000	1660	3100	304	6610	209	2500	192
MIN	83	137	100	100	140	240	195	117	129	78	76	68
AC-FT	18420	14090	8170	10190	21040	28540	32180	9610	36200	7320	20300	5380

CAL YR 1979 TOTAL 210407 MEAN 576 MAX 21500 MIN 70 AC-FT 417300
WTR YR 1980 TOTAL 106608 MEAN 291 MAX 6610 MIN 68 AC-FT 211500

06803555 SALT CREEK AT GREENWOOD, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1971 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED SEDIMENT DISCHARGE: October 1971 to September 1976.

REMARKS.--Prior to July 1, 1971, sediment records were obtained by the U.S. Corps of Engineers.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily, 15,900 mg/L May 18, 1974; minimum daily, 5 mg/L Oct. 9, 1971.
SEDIMENT LOADS: Maximum daily, 492,000 tons (447,000 tonnes) Oct. 11, 1973; minimum daily, 1.0 ton (0.9 tonne) Oct. 9, 1971.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 15...	1220	97	7400	8.1	11.5	10	11.0	8.7	230	220
NOV 14...	1245	123	4700	7.9	5.0	20	10.8	15	K170	290
DEC 18...	1200	125	6020	7.9	.5	12	--	8.0	K16	K10
JAN 09...	1000	125	6400	8.5	.0	8	--	18	K10	K68
FEB 06...	1030	153	4850	7.7	.5	10	9.6	7.5	120	90
MAR 13...	1550	371	2380	7.6	6.0	75	11.0	11	3700	560
APR 02...	1150	705	1400	7.5	7.5	160	9.3	6.5	K190	800
MAY 14...	1545	133	5100	8.3	13.5	9	13.1	4.0	200	K42
JUN 14...	0915	185	3950	7.9	28.0	30	5.3	10	K33000	K340
JUL 24...	1100	85	7500	8.2	25.5	--	11.8	11	590	100
AUG 13...	1050	138	4040	7.7	23.0	150	5.3	13	4700	7800

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT 15...	2000	3910	5.32	1020	3.3	.810	1.2	2.0	5.3	2.600
NOV 14...	1300	2610	3.55	868	3.4	1.800	2.0	3.8	7.2	3.000
DEC 18...	1700	3710	5.05	1250	2.5	3.000	1.2	4.2	6.7	2.500
JAN 09...	1900	3720	5.06	1260	2.8	2.100	1.1	3.2	6.0	2.000
FEB 06...	1100	2700	3.67	1120	2.1	2.100	.00	2.1	4.2	1.900
MAR 13...	570	1370	1.86	1370	1.4	1.900	.90	2.8	4.2	1.100
APR 02...	270	825	1.12	1570	1.9	.560	2.7	3.3	5.2	.920
MAY 14...	1300	2880	3.92	1030	2.1	.890	1.4	2.3	4.4	2.300
JUN 14...	1000	2280	3.10	1140	2.2	.740	1.6	2.3	4.5	1.400
JUL 24...	2700	4360	5.93	1000	2.4	.120	2.1	2.2	4.6	3.400
AUG 13...	1100	2350	3.20	876	4.0	.430	2.4	2.8	6.8	2.200

06803555 SALT CREEK AT GREENWOOD, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLOR (PLAT-INUM COBALT UNITS) (00080)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)
NOV 14...	1245	10	360	100	98	29	970	22	17	260
MAR 13...	1550	35	210	0	36	28	400	12	12	210
MAY 14...	1545	10	360	91	95	30	940	22	13	270
AUG 13...	1050	55	240	75	65	20	810	23	17	170

DATE	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
NOV 14...	250	.6	28	2860	3.1	2.000	430	20	270
MAR 13...	140	.5	16	1340	1.4	.890	230	50	100
MAY 14...	270	.5	22	2840	2.1	1.900	470	40	260
AUG 13...	210	.7	19	2360	3.8	1.700	410	--	--

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE, WATER (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)
OCT 16...	1315	89	14.5	166	40	--	--	--	--	--
NOV 19...	0900	152	4.0	397	163	--	--	--	--	--
MAR 13...	1550	371	6.0	306	307	92	95	97	100	--
APR 02...	1150	705	7.5	768	1460	95	97	99	100	--
MAY 14...	1545	133	18.5	92	33	83	100	--	--	--
JUN 14...	0915	185	28.0	180	90	29	31	37	92	100
JUL 05...	1325	185	29.5	142	71	86	89	96	100	--
24...	1100	85	25.5	117	27	89	100	--	--	--
AUG 13...	1050	138	23.0	590	220	100	--	--	--	--
SEP 03...	0945	113	25.0	168	51	98	98	100	--	--

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	NUMBER OF SAM-PLING POINTS (00063)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)
OCT 16...	1315	89	5	0	10	71	96	99	100	--	--
20...	1000	116	4	0	9	77	94	97	99	100	--
NOV 19...	0900	152	4	0	10	70	95	98	99	100	--
MAR 13...	1550	371	4	0	21	78	97	98	98	99	100
APR 02...	1150	705	3	0	19	68	73	86	93	99	100
MAY 14...	1545	133	4	0	4	50	88	97	100	--	--
JUN 14...	0915	185	4	0	9	69	94	99	100	--	--
JUL 05...	1325	185	3	0	6	51	90	96	99	100	--
AUG 13...	1050	138	7	0	8	62	92	96	99	100	--
SEP 03...	0945	113	5	0	18	66	94	98	100	--	--

06804000 WAHOO CREEK AT ITHACA, NE

LOCATION.--Lat 41°08'40", long 96°32'10", in NW1/4NW1/4 sec.33, T.14 N., R.8 E., Saunders County, Hydrologic Unit 10200203, on right bank 16 ft (5 m) downstream from bridge on State Highway 63 and 0.5 mi (0.8 km) south of Ithaca.

DRAINAGE AREA.--271 mi² (702 km²), of which 268 mi² (694 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1949 to current year.

REVISED RECORDS.--WDR NB-71-1: Drainage area. WDR NE-78-1: 1977(P).

GAGE.--Water-stage recorder. Datum of gage is 1,110.48 ft (338.474 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 27, 1959, nonrecording gages at same site and datum. Oct. 28, 1959, to Feb. 22, 1961, nonrecording gage at site 1.5 mi (2.4 km) upstream at datum 8.21 ft (2.502 m) higher.

REMARKS.—Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--31 years, 76.0 ft³/s (2.152 m³/s), 55,060 acre-ft/yr (67.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 77,400 ft³/s (2,190 m³/s) June 24, 1963, gage height, 22.93 ft (6.989 m), from rating curve extended above 13,000 ft³/s (368 m³/s) on basis of indirect measurement of peak flow; minimum daily, 3.3 ft³/s (0.093 m³/s) June 11, 1955.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since about 1910, 23.22 ft (7.077 m), from floodmark, Aug. 2, 1959, discharge, 45,300 ft³/s (1,280 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft³/s (42.5 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 10	0630	2090	59.2	15.89	4.843	Aug. 11	1645	1970	55.8	15.54	4.737
June 4	1800	*2740	77.6	17.70	5.395	Aug. 16	1515	1870	53.0	15.23	4.642

Minimum daily discharge, 11 ft³/s (0.31 m³/s) Aug. 1, 7, 8, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	101	21	23	26	30	57	31	447	27	11	22
2	18	35	22	24	28	33	59	32	167	27	13	20
3	17	28	23	25	26	43	180	32	96	27	12	19
4	17	25	24	25	28	40	148	31	1500	27	14	18
5	18	28	26	23	29	38	77	30	317	27	13	17
6	19	37	28	22	24	45	68	30	97	26	13	18
7	17	32	28	23	24	48	61	29	422	24	11	18
8	18	27	26	27	23	49	55	28	208	23	11	18
9	18	26	24	27	22	130	52	28	71	22	13	17
10	18	25	27	29	26	1020	49	29	55	22	11	19
11	18	24	27	31	24	263	47	29	47	21	972	18
12	18	25	22	31	23	127	47	28	41	19	157	17
13	18	24	24	32	24	77	45	27	39	20	34	17
14	18	24	27	28	25	138	42	27	38	20	49	17
15	19	24	26	29	25	549	42	27	110	19	76	17
16	19	24	20	35	24	263	40	28	96	20	808	17
17	19	23	25	34	23	101	39	38	42	18	162	17
18	20	23	31	38	25	73	40	42	37	17	39	17
19	21	23	30	35	26	66	38	34	40	17	28	17
20	23	23	28	34	26	69	36	31	39	17	26	17
21	21	29	27	36	86	58	36	29	33	17	32	16
22	21	59	27	36	961	53	34	28	90	16	23	16
23	24	40	27	35	718	52	33	27	91	15	20	16
24	23	28	27	40	135	51	32	26	40	14	19	16
25	21	27	26	37	160	48	31	26	35	14	19	16
26	20	27	26	35	84	47	33	26	33	13	19	17
27	20	27	26	34	74	51	32	26	31	14	32	16
28	23	25	26	34	82	54	32	26	30	13	35	16
29	19	22	26	35	48	66	32	26	28	13	20	17
30	49	25	26	28	---	73	32	27	27	13	20	17
31	468	---	25	24	---	68	---	28	---	12	20	---
TOTAL	1079	910	798	949	2849	3823	1549	906	4347	594	2732	520
MEAN	34.8	30.3	25.7	30.6	98.2	123	51.6	29.2	145	19.2	88.1	17.3
MAX	468	101	31	40	961	1020	180	42	1500	27	972	22
MIN	17	22	20	22	22	30	31	26	27	12	11	16
AC-FT	2140	1800	1580	1880	5650	7580	3070	1800	8620	1180	5420	1030

CAL YR 1979 TOTAL 30633.0 MEAN 83.9 MAX 1850 MIN 9.0 AC-FT 60760
WTR YR 1980 TOTAL 21056.0 MEAN 57.5 MAX 1500 MIN 11 AC-FT 41760

06805500 PLATTE RIVER AT LOUISVILLE, NE
(National stream-quality accounting network station)

LOCATION.--Lat 41°00'55", long 96°09'28", in NW1/4NW1/4 sec. 14, T. 12 N., R. 11 E., Sarpy County, Hydrologic Unit 10200202, on the left bank at the upstream side of bridge on Nebraska Highway 50, 1 mi (2 km) north of Louisville.

DRAINAGE AREA.--85,800 mi² (222,200 km²), approximately, of which about 71,000 mi² (183,900 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1953 to current year. October 1961 to September 1973 published as Platte River at South Bend.

REVISED RECORDS.--WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,007.10 ft (306.964 m) National Geodetic Vertical Datum of 1929. Dec. 5, 1961 to Sept. 30, 1973, at site 7 mi (11 km) upstream at datum 31.43 feet higher.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--27 years, 5,697 ft³/s (161.3 m³/s), 4,127,000 acre-ft/yr (5.09 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 124,000 ft³/s (3,510 m³/s) Mar. 30, 1960, gage height, 12.45 ft (3.795 m); minimum daily, 131 ft³/s (3.71 m³/s) Sept. 3, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge known since at least 1881, 124,000 ft³/s (3,510 m³/s) Mar. 30, 1960, gage height, 12.45 ft (3.795 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 31,600 ft³/s (895 m³/s) June 2, gage height, 7.35 ft (2.240 m); minimum daily, 336 ft³/s (9.52 m³/s) Aug. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2450	13000	3100	6000	1500	15000	14600	7450	20700	3680	534	1870
2	2230	9310	3000	6400	2100	13000	12800	7950	26300	3600	579	2010
3	2360	9050	3000	6200	3000	11500	16300	7070	20600	2940	564	2030
4	2170	8120	3190	5800	5000	10500	19900	7600	22800	2730	467	1520
5	2210	6660	3490	5000	6000	10000	19100	7320	20500	3040	429	1510
6	2390	6660	4280	4300	7400	9300	16400	7510	19900	2790	429	1640
7	2090	6250	6850	3900	8200	8600	16500	7130	19600	2450	390	1170
8	2150	6300	8150	3700	8400	14000	16300	8550	17000	2180	366	1210
9	2250	7100	7660	3300	8600	17000	17100	8240	13500	1910	342	1310
10	1890	6050	7640	3000	8600	19000	15300	7830	12100	1770	336	1210
11	2220	5850	8130	2500	8200	18200	14200	7710	11000	1620	880	1200
12	1820	4260	6970	2300	7600	17500	13600	8660	9690	1430	2620	1330
13	1710	5240	4500	2300	7400	16600	12800	7720	12300	1250	968	965
14	1890	4340	3900	2400	7000	15000	12900	8650	12400	1070	779	1200
15	1780	3760	3800	2600	7200	16200	12000	10500	10800	974	1630	1270
16	1810	3840	3800	3000	7000	16300	11100	14000	13800	954	2160	1110
17	2130	3570	3800	4000	6800	11400	10800	15900	9420	884	7290	1290
18	1960	4260	4500	5800	6600	9710	10000	16600	8570	838	3630	1330
19	2510	4010	5800	8000	7000	8980	9990	16400	7200	806	4130	1200
20	2230	4510	6600	8400	7000	8140	9320	15900	7510	764	3020	1390
21	2680	4630	8000	8400	7500	7970	9190	16100	7430	705	2560	1190
22	2800	6780	11000	8200	9000	7830	8500	14900	7800	631	2350	1270
23	3060	6400	13000	8000	10000	7450	9000	13800	7870	578	1880	1360
24	2780	5600	11000	7600	11000	7770	7520	13200	8390	521	1610	1450
25	2980	5600	10000	6800	12500	8460	7020	12800	8590	496	1600	1430
26	2450	5800	7600	6400	14000	7190	7490	13100	7330	546	1620	1530
27	3370	5850	8000	6000	15000	7360	7390	11900	7180	562	1440	1580
28	2900	5200	7000	4800	16900	7550	8010	20400	5890	565	1650	1650
29	2800	3700	6400	3700	17200	8130	7580	20700	4990	543	1420	1570
30	4050	3200	6600	2200	---	8560	7630	18100	4540	512	1340	1690
31	12500	---	7000	1700	---	14400	---	15200	---	534	1630	---
TOTAL	84620	174900	197760	152700	243700	358600	360340	368890	365700	43873	50643	42485
MEAN	2730	5830	6379	4926	8403	11570	12010	11900	12190	1415	1634	1416
MAX	12500	13000	13000	8400	17200	19000	19900	20700	26300	3680	7290	2030
MIN	1710	3200	3000	1700	1500	7190	7020	7070	4540	496	336	965
AC-FT	167800	346900	392300	302900	483400	711300	714700	731700	725400	87020	100500	84270

CAL YR 1979 TOTAL 2257725 MEAN 6186 MAX 41100 MIN 945 AC-FT 4478000
WTR YR 1980 TOTAL 2444211 MEAN 6678 MAX 26300 MIN 336 AC-FT 4848000

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1972 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1974 to current year.
WATER TEMPERATURES: November 1974 to current year.
SUSPENDED SEDIMENT DISCHARGE: October 1971 to current year.

REMARKS.—Prior to July 1, 1971, sediment records were obtained by the U.S. Corps of Engineers.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 3,450 micromhos Sept. 1, 1976; minimum daily, 272 micromhos Aug. 17, 1977.
WATER TEMPERATURES: Maximum, 36.0°C July 24, 1977, Aug. 19, 1979; minimum, 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily, 11,600 mg/L May 19, 1974; minimum daily, 60 mg/L July 19, 1976.
SEDIMENT LOADS: Maximum daily, 1,180,000 tons (1,070,000 tonnes) Mar. 21, 1978; minimum daily, 64 tons (58 tonnes) July 19, 1976.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 2,190 micromhos July 27; minimum daily, 337 micromhos Oct. 31.
WATER TEMPERATURES: Maximum, 35.5°C July 10; minimum, 0.0°C on many days during winter period.
SEDIMENT CONCENTRATIONS: Maximum daily, 3,860 mg/L Aug. 17; minimum daily, 70 mg/L Dec. 2, Jan. 8, Feb. 1, July 25.
SEDIMENT LOADS: Maximum daily, 184,000 tons (167,000 tonnes) Apr. 4; minimum daily, 94 tons (86 tonnes) July 25.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPERATURE, WATER (DEG C) (00010)	TURBIDITY (JTU) (00070)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV 14...	1100	4200	550	8.1	5.5	50	65	12.9	K970	K670
DEC 05...	1130	3450	740	8.3	.5	40	45	13.3	700	5200
JAN 15...	1045	2270	900	8.3	1.5	20	15	13.2	K110	128
FEB 21...	1600	7880	705	7.8	3.0	15	16	11.6	1200	920
MAR 13...	1300	16600	563	8.1	.5	40	22	14.0	2200	2300
APR 09...	1510	17200	635	8.1	10.0	150	260	11.9	K100	920
MAY 07...	1330	8000	1100	7.9	17.0	35	19	11.5	67	140
JUN 10...	1210	13200	815	8.5	26.0	110	90	7.6	1200	540
JUL 09...	1115	1880	1060	8.3	30.0	--	70	7.6	670	100
AUG 12...	1415	2460	540	7.8	26.0	1400	1500	6.0	K63000	K90000
SEP 10...	1130	1310	1750	8.5	21.5	35	22	9.8	K500	900

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)
NOV 14...	180	20	52	12	71	2.3	9.6	160	56	75
DEC 05...	210	10	61	14	69	2.1	9.2	200	79	73
JAN 15...	250	30	72	17	89	2.5	12	220	120	94
FEB 21...	230	56	68	16	51	1.5	9.1	170	130	27
MAR 13...	210	69	59	15	41	1.2	10	140	130	16
APR 09...	220	50	65	14	49	1.4	9.9	170	120	26
MAY 07...	280	120	70	25	120	3.1	12	160	240	89
JUN 10...	260	61	70	21	76	2.0	10	200	180	48
JUL 09...	260	60	71	20	140	3.8	12	200	150	150
AUG 12...	100	21	26	8.8	75	3.2	8.7	80	52	78
SEP 10...	200	22	56	15	270	8.3	12	180	110	380

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)
NOV 14...	.3	41	475	419	.65	5390	1.5	1.3	--	--
DEC 05...	.3	34	473	466	.64	4410	1.5	1.4	.34	.32
JAN 15...	.4	37	584	581	.79	3580	1.6	1.6	.26	.26
FEB 21...	.4	39	459	445	.62	9770	1.3	1.3	.19	.19
MAR 13...	.4	30	398	392	.54	17800	1.4	1.4	.28	.27
APR 09...	.4	28	453	420	.62	21000	1.3	1.2	.12	.04
MAY 07...	.6	14	692	667	.94	14900	.09	.06	--	.14
JUN 10...	.2	25	543	551	.74	19400	.06	.06	.06	.02
JUL 09...	.5	27	648	691	.88	3290	.07	.07	.08	.01
AUG 12...	.3	9.7	314	318	.43	2090	3.9	2.6	--	--
SEP 10...	.4	30	995	983	1.35	3520	.33	.33	.00	.00

DATE	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N) (00607)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N) (00624)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITROGEN, TOTAL (MG/L AS N) (00600)	NITROGEN, DISSOLVED (MG/L AS N) (00602)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
NOV 14...	--	--	--	--	--	--	--	--	.300	--
DEC 05...	.86	.50	1.2	.38	.82	2.7	2.2	.410	.300	9.9
JAN 15...	.52	.52	.78	.00	.78	2.4	2.4	.390	.360	9.3
FEB 21...	.53	.38	.72	.15	.57	2.0	1.9	.270	.240	--
MAR 13...	1.3	1.3	1.6	.00	1.6	3.0	3.0	.370	.220	11
APR 09...	2.4	.89	2.5	1.6	.93	3.8	2.1	.600	.230	21
MAY 07...	--	.65	1.4	.61	.79	--	.85	.260	.070	--
JUN 10...	2.7	.70	2.8	2.1	.72	2.9	.79	.420	.150	17
JUL 09...	2.1	1.7	2.2	.50	1.7	2.3	1.8	.530	.280	15
AUG 12...	--	--	--	--	--	--	--	3.500	.170	--
SEP 10...	1.9	1.2	1.9	.70	1.2	2.2	1.5	.880	.610	10

DATE	TIME	ARSENIC SUSPENDED TOTAL (UG/L AS AS) (01001)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, SUSPENDED RECOVERABLE (UG/L AS BA) (01006)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD) (01026)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR) (01031)
NOV 14...	1100	0	5	400	0	400	3	2	1	0	0
DEC 05...	1130	--	--	--	--	--	--	--	--	--	--
FEB 21...	1600	0	5	400	300	100	4	3	<1	10	0
MAR 13...	1300	--	--	--	--	--	--	--	--	--	--
MAY 07...	1330	0	4	400	300	100	3	2	<1	10	10
JUN 10...	1210	--	--	--	--	--	--	--	--	--	--
AUG 12...	1415	19	3	700	600	100	0	0	0	80	80
SEP 10...	1130	--	--	--	--	--	--	--	--	--	--

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO) (01036)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU) (01041)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE) (01044)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)
NOV 14...	0	3	3	0	10	10	0	3300	3300	40	16
DEC 05...	--	--	--	--	--	--	--	--	--	--	--
FEB 21...	10	3	0	<3	31	28	3	1400	1400	20	26
MAR 13...	--	--	--	--	--	--	--	--	--	--	--
MAY 07...	0	2	0	<3	16	11	5	1400	1400	<10	10
JUN 10...	--	--	--	--	--	--	--	--	--	--	--
AUG 12...	0	28	28	0	78	69	9	65000	65000	170	65
SEP 10...	--	--	--	--	--	--	--	--	--	--	--

DATE	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB) (01050)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN) (01054)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG) (71895)	MERCURY DISSOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)	NICKEL, SUSPENDED RECOVERABLE (UG/L AS NI) (01066)	NICKEL, DISSOLVED (UG/L AS NI) (01065)
NOV 14...	13	3	310	290	20	.1	.0	.1	8	8	0
DEC 05...	--	--	--	--	--	--	--	--	--	--	--
FEB 21...	18	8	100	80	20	1.3	.3	1.0	6	5	1
MAR 13...	--	--	--	--	--	--	--	--	--	--	--
MAY 07...	10	0	150	140	7	.2	.2	.0	8	6	2
JUN 10...	--	--	--	--	--	--	--	--	--	--	--
AUG 12...	62	3	2300	2300	30	.3	.0	.0	84	80	4
SEP 10...	--	--	--	--	--	--	--	--	--	--	--

DATE	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE) (01146)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, SUSPENDED RECOVERABLE (UG/L AS AG) (01076)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN) (01091)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED (MG/L AS C) (00689)
NOV 14...	2	0	2	0	0	0	190	180	10	5.1	1.8
DEC 05...	--	--	--	0	--	--	--	--	--	--	--
FEB 21...	2	0	2	2	2	0	250	250	<3	--	--
MAR 13...	--	--	--	10	--	--	--	--	--	--	--
MAY 07...	2	0	2	0	0	0	40	40	<3	11	8.1
JUN 10...	--	--	--	0	--	--	--	--	--	--	--
AUG 12...	0	0	1	0	0	0	290	270	20	--	--
SEP 10...	--	--	--	0	--	--	--	--	--	--	--

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	PCB, TOTAL (UG/L) (39516)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39519)	ALDRIN, TOTAL (UG/L) (39330)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39333)	CHLOR-DANE, TOTAL (UG/L) (39350)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39351)	DDD, TOTAL (UG/L) (39360)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39363)	DDE, TOTAL (UG/L) (39365)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39368)
NOV 14...	1100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 21...	1600	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	DDT, TOTAL (UG/L) (39370)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39373)	DI-AZINON, TOTAL (UG/L) (39570)	DI-AZINON, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39571)	DI-ELDRIN TOTAL (UG/L) (39380)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39383)	ENDRIN, TOTAL (UG/L) (39390)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39393)	ETHION, TOTAL (UG/L) (39398)	ETHION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39399)	HEPTA-CHLOR, TOTAL (UG/L) (39410)
NOV 14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 21...	ND	--	.34	--	ND	--	ND	--	ND	--	ND

DATE	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39413)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE TOTAL (UG/L) (39340)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39343)	MALA-THION, TOTAL (UG/L) (39530)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39531)	METH-OXY-CHLOR, TOTAL (UG/L) (39480)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)	METHYL PARA-THION, TOTAL (UG/L) (39600)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG) (39601)
NOV 14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 21...	--	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	METHYL TRI-THION, TOTAL (UG/L) (39790)	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG) (39791)	PARA-THION, TOTAL (UG/L) (39540)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39541)	TOX-APHENE, TOTAL (UG/L) (39400)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39403)	TOTAL TRI-THION (UG/L) (39786)	TRI-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39787)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)
NOV 14...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 21...	ND	--	ND	--	ND	--	ND	--	--	--	--

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

DATE	NOV 14,79	MAR 13,80	MAY 7,80	JUN 10,80
TIME	1100	1300	1330	1210
TOTAL CELLS/ML	18000	2100	49000	260000
DIVERSITY: DIVISION	1.6	0.6	1.3	1.9
.CLASS	1.6	0.6	1.3	1.9
..ORDER	1.9	1.0	1.8	2.0
...FAMILY	2.3	1.4	2.3	2.7
....GENUS	2.7	1.6	2.7	3.1

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	--	-	--	-	--	-	--	-
...COELASTRACEAE								
....COELASTRUM	--	-	--	-	--	-	11000	4
...HYDRODICTYACEAE								
....PEDIASTRUM	--	-	--	-	--	-	--	-
...MICRACTINIACEAE								
....GOLENKINIA	--	-	--	-	--	-	1300	1
....MICRACTINIUM	--	-	--	-	--	-	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	340	2	30	1	4100	8	16000	6
....CHODATELLA	--	-	*	0	--	-	1300	1
....CLOSTERIDIUM	97	1	--	-	--	-	--	-
....CLOSTERIOPSIS	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	190	1	--	-	3400	7	--	-
....FRANCEIA	--	-	--	-	--	-	--	-
....KIRCHNERIELLA	97	1	*	0	690	1	16000	6
....OOCYSTIS	--	-	--	-	--	-	--	-
....SELENASTRUM	--	-	--	-	--	-	2600	1
....TETRAEDRON	*	0	--	-	--	-	--	-
....TREUBARIA	--	-	--	-	--	-	--	-
...SCENEDESMACEAE								
....ACTINASTRUM	190	1	--	-	--	-	5300	2
....CRUCIGENIA	--	-	--	-	--	-	--	-
....SCENEDESMUS	5500#	31	110	5	12000#	24	48000#	19
....TETRASTRUM	630	4	20	1	--	-	11000	4
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	*	0	61	3	340	1	1300	1
...VOLVOCACEAE								
....PANDORINA	--	-	--	-	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	340	2	130	6	18000#	37	--	-
....MELOSIRA	290	2	--	-	1400	3	42000#	17
....SKELETONEMA	--	-	*	0	--	-	--	-
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	--	-	--	-	--	-
...CYMBELLACEAE								
....EPITHEMIA	--	-	*	0	--	-	--	-
...DIATOMACEAE								
....DIATOMA	--	-	20	1	--	-	--	-
...FRAGILARIACEAE								
....ASTERIONELLA	--	-	20	1	--	-	--	-
....FRAGILARIA	4600#	26	1600#	76	--	-	--	-
....SYNEDRA	*	0	--	-	1000	2	--	-
...GOMPHONEMATACEAE								
....GOMPHONEMA	--	-	*	0	--	-	--	-
...NAVICULACEAE								
....NAVICULA	190	1	35	2	690	1	4000	2
....PINNULARIA	97	1	--	-	--	-	--	-
...NITZSCHIACEAE								
....NITZSCHIA	340	2	30	1	4800	10	4000	2
...SURIRELLACEAE								
....SURIRELLA	--	-	*	0	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOCHRYSIDACEAE								
....CHROOMONAS	--	-	--	-	690	1	--	-
...CRYPTOMONADACEAE								
....CRYPTOMONAS	--	-	--	-	--	-	53000#	21

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

DATE	NOV 14,79		MAR 13,80		MAY 7,80		JUN 10,80	
TIME	1100		1300		1330		1210	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....AGMENELLUM	--	-	--	-	--	-	--	-
....ANACYSTIS	390	2	--	-	--	-	40000#	16
....COCCOCHLORIS	--	-	--	-	340	1	--	-
..HORMOGONALES								
...NOSTOCACEAE								
....ANABAENA	--	-	--	-	--	-	--	-
....CYLINDROSPERMUM	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE								
....OSCILLATORIA	4400#	24	30	1	1700	3	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	--	-	--	-	--	-
....TRACHELOMONAS	*	0	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

DATE	JUL 9,80		AUG 12,80		SEP 10,80	
TIME	1115		1415		1130	
TOTAL CELLS/ML	210000		27000		130000	
DIVERSITY: DIVISION	1.2		1.6		1.4	
.CLASS	1.2		1.6		1.4	
..ORDER	1.4		2.0		2.0	
...FAMILY	2.1		3.0		2.5	
....GENUS	3.3		3.4		3.0	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...CHARACIACEAE						
....SCHROEDERIA	--	-	--	-	*	0
...COELASTRACEAE						
....COELASTRUM	3800	2	1200	4	--	-
...HYDRODICTYACEAE						
....PEDIASTRUM	--	-	--	-	4900	4
...MICRACTINIACEAE						
....GOLENKINIA	--	-	140	1	*	0
....MICRACTINIUM	--	-	--	-	810	1
...OOCYSTACEAE						
....ANKISTRODESMUS	10000	5	1300	5	*	0
....CHODATELLA	*	0	--	-	--	-
....CLOSTERIDIUM	--	-	--	-	--	-
....CLOSTERIOPSIS	--	-	140	1	--	-
....DICTYOSPHAERIUM	17000	8	1700	6	1000	1
....FRANCEIA	1900	1	--	-	--	-
....KIRCHNERIELLA	8500	4	--	-	810	1
....OOCYSTIS	1900	1	--	-	1400	1
....SELENASTRUM	--	-	--	-	*	0
....TETRAEDRON	--	-	--	-	*	0
....TREUBARIA	--	-	140	1	--	-
...SCENEDESMACEAE						
....ACTINASTRUM	45000#	22	--	-	--	-
....CRUCIGENIA	9400	4	--	-	*	0
....SCENEDESMUS	26000	13	2500	9	17000	14
....TETRASTRUM	--	-	--	-	4900	4
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	*	0	--	-	810	1
...VOLVOCACEAE						
....PANDORINA	--	-	1200	4	--	-
CHRYSOPHYTA						
.BACILLARIOPHYCEAE						
..CENTRALES						
...COSCINODISCACEAE						
....CYCLOTELLA	30000	14	870	3	12000	9
....MELOSIRA	37000#	17	720	3	1200	1
....SKELETONEMA	--	-	--	-	--	-
..PENNALES						
...ACHNANTHACEAE						
....ACHNANTHES	1900	1	--	-	--	-
...CYMBELLACEAE						
....EPITHEMIA	--	-	--	-	--	-
...DIATOMACEAE						
....DIATOMA	--	-	140	1	--	-
...FRAGILARIACEAE						
....ASTERIONELLA	--	-	--	-	--	-
....FRAGILARIA	--	-	--	-	--	-
....SYNEDRA	*	0	--	-	--	-
...GOMPHONEMATACEAE						
....GOMPHONEMA	--	-	--	-	--	-
...NAVICULACEAE						
....NAVICULA	--	-	430	2	*	0
....PINNULARIA	--	-	140	1	--	-
...NITZSCHIACEAE						
....NITZSCHIA	*	0	4300#	16	4300	3
...SURIRELLACEAE						
....SURIRELLA	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)						
.CRYPTOPHYCEAE						
..CRYPTOMONADALES						
...CRYPTOCHRYSIDACEAE						
....CHROOMONAS	--	-	--	-	--	-
...CRYPTOMONADACEAE						
....CRYPTOMONAS	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1979 TO SEPTEMBER 1980

DATE TIME	JUL 9,80 1115		AUG 12,80 1415		SEP 10,80 1130	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..CHROOCOCCALES						
...CHROOCOCCACEAE						
....AGMENELLUM	--	-	--	-	6500	5
....ANACYSTIS	12000	6	290	1	46000#	37
....COCCOCHLORIS	--	-	--	-	--	-
..HORMOGONALES						
...NOSTOCACEAE						
....ANABAENA	--	-	3200	12	1200	1
....CYLINDROSPERMUM	--	-	1900	7	--	-
...OSCILLATORIACEAE						
....OSCILLATORIA	--	-	6900#	25	20000#	16
EUGLENOPHYTA (EUGLENOIDS)						
.EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
....EUGLENA	*	0	--	-	--	-
....TRACHELOMONAS	--	-	140	1	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	LENGTH OF EXPO- SURE (DAYS) (00022)	BIOMASS CHLORO- PHYLL RATIO PERI- PHYTON (UNITS) (70950)	CHLOR-A PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70958)	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PERI- PHYTON BIOMASS ASH WEIGHT G/SQ M (00572)
MAY							
23...	1200	31	958	2.60	.000	6.90	4.40
JUN							
24...	1130	31	8571	.630	.090	20.0	15.0
JUL							
31...	0930	37	.00	4.40	.520	91.0	91.0

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)
AUG					
06...	0800	1770	8.6	23.0	7.4
06...	1000	2000	8.7	24.0	9.6
06...	1200	1990	8.7	27.0	10.6
06...	1400	1960	8.8	29.0	11.6
06...	1600	1820	9.0	32.0	12.0
06...	1800	2000	9.2	32.0	11.5
06...	2000	2100	9.0	30.5	9.6
AUG					
06...	2200	2000	9.0	29.0	7.1
06...	2400	2250	8.9	27.5	5.8
07...	0200	1910	8.8	26.5	5.3
07...	0400	1960	8.6	25.5	5.2
07...	0600	1900	8.5	24.5	5.2
07...	0800	1980	8.4	24.0	6.2

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	438	235	449	462	483	445	154	458	470	274	445	376
2	446	232	455	461	463	414	126	467	145	273	455	420
3	448	242	454	476	463	410	128	470	142	279	448	427
4	441	310	460	469	468	404	125	470	135	382	455	428
5	438	421	452	471	462	458	183	465	252	374	363	428
6	438	420	453	470	465	459	167	470	248	377	363	433
7	445	437	460	499	474	456	169	470	360	448	465	430
8	443	435	462	500	470	459	174	465	362	446	465	426
9	446	438	455	499	475	230	450	472	413	445	365	423
10	443	444	481	433	462	247	453	461	413	436	364	429
11	445	448	479	434	460	253	445	463	436	435	368	428
12	445	451	480	440	461	230	443	460	439	439	349	426
13	448	448	472	448	463	237	448	460	447	442	343	425
14	458	442	468	448	508	236	450	482	447	458	340	429
15	453	446	474	449	507	237	444	490	445	455	333	428
16	440	446	462	446	504	239	447	490	450	451	218	428
17	448	448	451	459	502	413	454	490	451	457	218	427
18	446	446	445	462	450	415	449	490	453	452	322	429
19	438	459	442	461	451	416	449	495	451	451	325	430
20	423	450	460	467	450	415	455	490	455	449	328	420
21	418	450	468	460	452	444	447	488	439	448	328	423
22	453	450	462	461	149	446	445	485	443	451	394	420
23	444	451	459	462	149	445	450	483	440	454	395	419
24	445	455	468	471	149	445	450	489	460	452	425	420
25	448	449	468	465	180	417	447	483	460	451	425	434
26	449	450	465	491	300	411	445	460	458	453	420	433
27	448	448	459	494	301	413	444	460	460	455	438	436
28	447	451	460	490	300	415	444	459	458	458	439	437
29	448	458	461	491	300	202	443	459	450	468	437	437
30	164	458	461	489	---	193	444	470	447	458	439	435
31	152	---	461	490	---	194	---	470	---	452	377	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.5	7.5	.0	.5	.0	.0	7.0	20.0	22.5	30.0	32.5	24.0
2	20.0	5.5	.0	.0	.0	1.0	7.0	22.0	22.5	25.0	30.0	21.0
3	18.0	7.5	.0	.0	.0	2.5	6.0	22.5	25.0	26.0	24.5	22.0
4	16.5	8.5	2.0	.0	.0	.5	8.0	22.5	24.0	26.0	27.0	25.5
5	15.0	7.0	1.5	.0	.0	.5	8.0	23.0	27.0	28.5	29.5	28.0
6	16.5	4.5	1.5	.0	.0	1.0	14.0	21.0	27.0	33.0	32.0	30.5
7	19.0	4.5	2.0	.0	.0	.5	15.0	19.0	25.5	32.0	31.0	27.5
8	19.5	4.5	.0	.0	.5	3.0	10.5	17.0	24.0	34.0	32.0	25.0
9	15.0	2.5	.0	1.0	.0	4.5	10.5	16.5	25.0	35.0	29.0	22.0
10	14.0	2.0	3.5	.0	.5	2.0	11.5	20.0	26.5	35.5	24.0	21.5
11	18.0	4.0	.0	.0	.0	2.0	9.5	17.0	26.5	33.0	29.0	23.0
12	14.5	3.5	.0	1.0	.0	.5	11.0	15.0	24.5	27.0	25.5	25.5
13	9.5	4.0	.0	1.0	.0	3.0	11.0	16.0	26.5	33.0	30.0	26.0
14	12.5	5.0	.0	1.0	.0	5.0	11.0	17.0	28.5	27.0	24.0	26.0
15	14.0	7.0	.5	.0	.0	6.0	13.5	18.5	26.0	32.0	23.0	21.5
16	14.0	8.5	.5	.0	.5	3.0	13.0	15.0	23.0	32.0	24.0	16.0
17	18.0	10.0	.0	1.0	.5	5.0	13.0	14.0	25.0	32.0	22.0	15.0
18	17.5	10.5	.0	.0	1.0	10.0	16.0	14.5	27.0	29.0	24.0	21.0
19	17.0	11.5	.0	1.0	1.0	10.0	19.0	17.0	22.0	30.0	29.5	25.0
20	22.0	7.0	.0	.5	1.5	10.0	22.0	20.0	21.0	27.0	25.0	28.0
21	17.0	7.0	.5	.0	1.0	10.0	22.0	21.5	24.5	29.0	29.0	25.0
22	6.0	4.0	.5	.0	1.0	9.0	23.0	23.0	24.0	30.0	28.5	19.0
23	8.5	4.0	.5	1.0	1.0	8.0	20.5	23.5	25.5	26.0	27.5	14.5
24	11.0	4.0	.0	.0	2.0	6.0	18.0	24.0	26.0	26.0	21.5	20.0
25	12.5	3.0	.0	.0	1.0	5.5	18.0	25.5	30.0	24.0	25.5	20.0
26	13.0	4.0	.0	.0	1.5	4.0	16.0	25.0	32.5	24.5	30.0	18.5
27	15.0	4.5	.0	.0	1.0	5.5	16.0	25.5	32.0	23.0	21.5	21.5
28	24.5	.0	.0	.0	.5	5.5	18.0	21.0	30.0	23.0	21.0	17.0
29	14.5	.0	.0	.0	.0	5.5	19.5	25.0	30.0	31.5	29.0	17.0
30	13.0	.0	2.0	.0	---	6.0	19.5	23.0	28.0	22.5	26.0	15.0
31	10.0	---	1.0	.0	---	9.0	---	21.0	---	23.0	22.0	---

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	2450	230	1520	13000	830	29100	3100	120	1000
2	2230	210	1260	9310	900	22600	3000	70	567
3	2360	180	1150	9050	1000	24400	3000	150	1220
4	2170	120	703	8120	960	21000	3190	580	5000
5	2210	180	1070	6660	700	12600	3490	440	4150
6	2390	230	1480	6660	310	5570	4280	320	3700
7	2090	180	1020	6250	270	4560	6850	570	10500
8	2150	180	1040	6300	230	3910	8150	570	12500
9	2250	200	1220	7100	360	6900	7660	560	11600
10	1890	140	714	6050	270	4410	7640	520	10700
11	2220	240	1440	5850	270	4260	8130	580	12700
12	1820	160	786	4260	240	2760	6970	260	4890
13	1710	190	877	5240	390	5520	4500	110	1340
14	1890	220	1120	4340	280	3280	3900	150	1580
15	1780	170	817	3760	170	1730	3800	100	1030
16	1810	190	929	3840	170	1760	3800	90	923
17	2130	260	1500	3570	160	1540	3800	80	821
18	1960	250	1320	4260	220	2530	4500	80	972
19	2510	320	2170	4010	140	1520	5800	110	1720
20	2230	280	1690	4510	180	2190	6600	100	1780
21	2680	310	2240	4630	180	2250	8000	110	2380
22	2800	360	2720	6780	440	8050	11000	360	10700
23	3060	330	2730	6400	430	7430	13000	1140	40000
24	2780	270	2030	5600	450	6800	11000	850	25200
25	2980	230	1850	5600	480	7260	10000	690	18600
26	2450	180	1190	5800	360	5640	7600	420	8620
27	3370	200	1820	5850	320	5050	8000	350	7560
28	2900	140	1100	5200	270	3790	7000	430	8130
29	2800	110	832	3700	200	2000	6400	480	8290
30	4050	150	1640	3200	90	778	6600	490	8730
31	12500	740	25000	---	---	---	7000	520	9830
TOTAL	84620	---	66978	174900	---	211188	197760	---	236733

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	6000	530	8590	1500	70	284	15000	930	37700
2	6400	440	7600	2100	160	907	13000	220	7720
3	6200	120	2010	3000	340	2750	11500	170	5280
4	5800	100	1570	5000	380	5130	10500	310	8790
5	5000	90	1220	6000	200	3240	10000	310	8370
6	4300	90	1040	7400	170	3400	9300	260	6530
7	3900	110	1160	8200	110	2440	8600	440	10200
8	3700	70	699	8400	220	4990	14000	1000	37800
9	3300	80	713	8600	240	5570	17000	1160	53200
10	3000	100	810	8600	230	5340	19000	1030	52800
11	2500	80	540	8200	240	5310	18200	1040	51100
12	2300	80	497	7600	170	3490	17500	1010	47700
13	2300	170	1060	7400	170	3400	16600	1050	47100
14	2400	280	1810	7000	170	3210	15000	1030	41700
15	2600	310	2180	7200	140	2720	16200	1320	57700
16	3000	370	3000	7000	150	2840	16300	1530	67300
17	4000	470	5080	6800	130	2390	11400	1040	32000
18	5800	450	7050	6600	170	3030	9710	720	18900
19	8000	530	11400	7000	250	4720	8980	650	15800
20	8400	350	7940	7000	440	8320	8140	540	11900
21	8400	280	6350	7500	490	9920	7970	460	9900
22	8200	210	4650	9000	870	21100	7830	430	9090
23	8000	180	3890	10000	970	26200	7450	410	8250
24	7600	180	3690	11000	650	19300	7770	450	9440
25	6800	150	2750	12500	780	26300	8460	570	13000
26	6400	230	3970	14000	1450	54800	7190	660	12800
27	6000	110	1780	15000	1600	64800	7360	660	13100
28	4800	130	1680	16900	1350	61600	7550	650	13300
29	3700	90	899	17200	1180	54800	8130	670	14700
30	2200	90	535	---	---	---	8560	660	15300
31	1700	80	367	---	---	---	14400	1280	49800
TOTAL	152700	---	96530	243700	---	412301	358600	---	788270

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	14600	1460	57600	7450	550	11100	20700	1510	84400
2	12800	1080	37300	7950	630	13500	26300	1700	121000
3	16300	2280	100000	7070	580	11100	20600	980	54500
4	19900	3420	184000	7600	700	14400	22800	1010	62200
5	19100	3260	168000	7320	700	13800	20500	1250	69200
6	16400	2650	117000	7510	300	6080	19900	1810	97300
7	16500	2620	117000	7130	300	5780	19600	3210	170000
8	16300	2570	113000	8550	410	9460	17000	2360	108000
9	17100	2640	122000	8240	500	11100	13500	1100	40100
10	15300	2400	99100	7830	450	9510	12100	400	13100
11	14200	1980	75900	7710	490	10200	11000	420	12500
12	13600	1580	58000	8660	540	12600	9690	430	11300
13	12800	1350	46700	7720	400	8340	12300	1180	39200
14	12900	1300	45300	8650	480	11200	12400	1310	43900
15	12000	1150	37300	10500	650	18400	10800	1320	38500
16	11100	1020	30600	14000	740	28000	13800	1960	73800
17	10800	1180	34400	15900	880	37800	9420	1810	46000
18	10000	1000	27000	16600	870	39000	8570	1500	34700
19	9990	900	24300	16400	920	40700	7200	600	11700
20	9320	830	20900	15900	760	32600	7510	620	12600
21	9190	1060	26300	16100	660	28700	7430	620	12400
22	8500	960	22000	14900	590	23700	7800	730	15400
23	9000	690	16800	13800	380	14200	7870	580	12300
24	7520	520	10600	13200	330	11800	8390	560	12700
25	7020	560	10600	12800	320	11100	8590	780	18100
26	7490	560	11300	13100	360	12700	7330	510	10100
27	7390	600	12000	11900	440	14100	7180	470	9110
28	8010	650	14100	20400	2360	130000	5890	490	7790
29	7580	560	11500	20700	3060	171000	4990	460	6200
30	7630	450	9270	18100	2130	104000	4540	440	5400
31	---	---	---	15200	1700	69800	---	---	---
TOTAL	360340	---	1659870	368890	---	935770	365700	---	1253500

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	3680	560	5560	534	130	187	1870	370	1870
2	3600	680	6610	579	110	172	2010	390	2120
3	2940	620	4920	564	130	198	2030	290	1590
4	2730	530	3910	467	140	176	1520	190	780
5	3040	420	3450	429	110	127	1510	200	815
6	2790	370	2790	429	130	151	1640	250	1110
7	2450	260	1720	390	120	126	1170	220	695
8	2180	290	1710	366	120	119	1210	140	457
9	1910	280	1440	342	120	111	1310	220	778
10	1770	210	1000	336	160	145	1210	130	425
11	1620	220	962	880	1760	2760	1200	150	486
12	1430	190	734	2620	3720	26300	1330	200	718
13	1250	180	608	968	1990	5200	965	110	287
14	1070	170	491	779	860	1810	1200	180	583
15	974	130	342	1630	1040	4580	1270	210	720
16	954	110	283	2160	1980	11600	1110	130	390
17	884	110	263	7290	3860	76000	1290	210	731
18	838	120	272	3630	3100	30400	1330	190	683
19	806	130	283	4130	1320	14700	1200	140	454
20	764	130	268	3020	750	6120	1390	180	676
21	705	120	228	2560	660	4560	1190	170	546
22	631	100	170	2350	650	4120	1270	210	720
23	578	80	125	1880	370	1880	1360	250	918
24	521	80	113	1610	270	1170	1450	190	744
25	496	70	94	1600	240	1040	1430	200	772
26	546	120	177	1620	230	1010	1530	250	1030
27	562	120	182	1440	130	505	1580	250	1070
28	565	250	381	1650	210	936	1650	250	1110
29	543	170	249	1420	180	690	1570	180	763
30	512	150	207	1340	190	687	1690	200	913
31	534	170	245	1630	250	1100	---	---	---
TOTAL	43873	---	39787	50643	---	198680	42485	---	24954

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	NUMBER OF SAM-PLING POINTS (00063)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)
OCT												
06...	1345	2210	3	--	0	21	58	85	93	98	100	--
27...	1330	3370	3	0	3	26	75	93	98	99	100	--
NOV												
14...	1045	4180	4	0	1	17	57	77	89	98	100	--
DEC												
05...	1145	3450	3	0	1	11	56	90	96	99	100	--
JAN												
15...	1045	2270	2	0	1	22	60	75	80	87	98	100
FEB												
28...	1345	16900	3	0	5	43	59	70	82	94	99	100
MAR												
13...	1210	16600	4	--	0	5	48	95	98	99	100	--
APR												
01...	1110	15000	2	0	2	30	33	60	71	97	100	--
09...	1250	17200	4	0	1	21	51	80	92	98	100	--
22...	1110	9500	4	0	2	29	66	86	94	98	100	--
MAY												
07...	1330	8000	5	0	4	32	61	85	96	99	100	--
23...	1200	13100	4	0	1	18	44	70	83	93	99	100
30...	1045	16900	4	0	1	21	51	78	91	98	100	--
JUN												
10...	1130	13200	2	--	0	6	21	53	71	91	100	--
24...	1130	9640	3	0	3	16	60	89	98	100	--	--
JUL												
09...	1030	1880	3	--	0	5	30	80	95	99	100	--
31...	0920	506	8	--	0	21	55	89	96	99	100	--
AUG												
12...	1330	2460	4	--	0	7	28	81	92	99	100	--
26...	1200	1910	3	--	0	14	50	97	99	100	--	--
SEP												
10...	1030	1310	3	--	0	8	34	79	92	99	100	--
26...	1245	1500	3	--	0	4	41	94	99	100	--	--

06805500 PLATTE RIVER AT LOUISVILLE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE, WATER (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)
OCT							
06...	1345	2210	15.0	170	1010	--	--
27...	1330	3370	14.5	158	1440	--	--
NOV							
14...	1045	4180	5.5	267	3010	--	--
DEC							
05...	1145	3450	.5	423	3940	--	--
JAN							
15...	1045	2270	1.5	305	1870	--	--
FEB							
28...	1345	16900	.5	1310	59800	--	--
MAR							
13...	1210	16600	.5	807	36200	--	--
APR							
01...	1110	15000	5.0	1550	62800	27	27
09...	1250	17200	10.0	2680	124000	28	28
22...	1100	9500	20.5	2080	53400	--	--
MAY							
07...	1330	8000	17.0	270	5830	--	--
23...	1200	13100	18.0	299	10600	--	--
30...	1045	16900	24.0	1860	84900	51	51
JUN							
10...	1130	13200	26.0	417	14900	--	--
24...	1130	9640	24.0	646	16800	--	--
JUL							
09...	1030	1880	--	295	1500	--	--
31...	0920	506	25.0	130	178	--	--
AUG							
12...	1330	2460	26.0	3660	24300	55	67
26...	1200	1910	27.5	306	1580	--	--
SEP							
10...	1030	1310	24.0	153	541	--	--
26...	1245	1500	16.0	188	761	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)	SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM (70347)
OCT							
06...	--	56	--	--	--	--	--
27...	--	68	--	--	--	--	--
NOV							
14...	--	54	70	82	100	--	--
DEC							
05...	--	22	38	72	99	100	--
JAN							
15...	--	20	20	80	100	--	--
FEB							
28...	--	30	48	72	83	98	100
MAR							
13...	--	38	55	89	99	100	--
APR							
01...	27	65	73	80	88	97	100
09...	48	48	54	59	75	100	--
22...	--	12	14	19	54	100	--
MAY							
07...	--	62	90	98	100	--	--
23...	--	26	79	91	100	--	--
30...	62	97	99	100	--	--	--
JUN							
10...	--	67	77	90	100	--	--
24...	--	88	89	95	100	--	--
JUL							
09...	--	69	76	82	94	100	--
31...	--	92	93	98	100	--	--
AUG							
12...	79	98	99	99	100	--	--
26...	--	91	93	99	100	--	--
SEP							
10...	--	82	--	--	--	--	--
26...	--	81	83	94	100	--	--

06806500 WEEPING WATER CREEK AT UNION, NE

LOCATION (REVISED).--Lat 40°47'35", long 95°54'40", in SW1/4NW1/4 sec.36, T.10 N., R.13 E., Cass County, Hydrologic Unit 10240001, on left bank near downstream side of bridge on U.S. Highways 73 and 75, 1.5 mi (2.4 km) southeast of Union and 2.8 mi (4.5 km) downstream from South Branch Weeping Water Creek.

DRAINAGE AREA.--241 mi^2 (624 km^2).

PERIOD OF RECORD.--February 1950 to current year.

REVISED RECORDS.--WSP 2118: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 929.72 ft (283.379 m) National Geodetic Vertical Datum of 1929. Prior to May 14, 1951, nonrecording gage at site 2 mi (3 km) upstream at different datum. May 15, 1951, to Aug. 22, 1968, water-stage recorder for stages above 7.9 ft (2.41 m) and nonrecording gage and Aug. 23, 1968 to Aug. 22, 1980, water-stage recorder on downstream side of bridge pier at present datum.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--30 years, 84.4 ft^3/s (2.390 m^3/s), 61,150 acre-ft/yr (75.4 hm^3/yr); median of yearly mean discharges, 69 ft^3/s (1.954 m^3/s), 50,000 acre-ft/yr (61.6 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 60,300 ft^3/s (1,710 m^3/s) May 9, 1950, gage height, 26.80 ft (8.169 m), from floodmark, present site and datum, from rating curve extended above 12,000 ft^3/s (340 m^3/s) on basis of measurement of peak flow through bridges and over highway embankment; minimum daily, 0.1 ft^3/s (0.003 m^3/s) Sept. 10-12, 14, 15, 17, 18, 1955.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft^3/s (85.0 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
June 2	1815	4190	119	16.86	5.139
Aug. 17	1315	*5850	166	19.32	5.889

Minimum daily discharge, 4.6 ft^3/s (0.13 m^3/s) Aug. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	135	27	35	23	54	80	43	311	21	4.8	34
2	12	51	29	33	27	70	76	42	2110	22	4.8	22
3	12	39	31	32	26	90	248	42	796	24	4.9	18
4	12	35	33	35	29	60	183	39	120	24	5.2	16
5	13	45	38	32	30	50	140	38	95	36	5.6	14
6	13	49	35	30	27	58	100	37	70	40	5.8	14
7	13	42	39	27	26	66	90	35	60	29	5.6	12
8	14	39	36	25	26	100	80	33	50	21	5.3	11
9	14	36	44	24	24	300	72	33	46	19	5.0	11
10	13	34	33	26	32	224	66	35	43	17	4.6	12
11	14	33	30	32	29	90	90	32	40	15	24	12
12	15	33	28	33	26	70	350	32	37	13	24	12
13	14	32	31	33	29	60	220	34	35	13	17	15
14	15	32	32	34	32	65	140	34	34	12	43	12
15	15	33	34	33	30	104	90	33	32	12	122	11
16	16	33	23	40	28	101	80	35	32	13	376	11
17	24	31	25	50	26	77	71	51	32	12	3520	13
18	26	32	27	48	30	62	68	47	31	12	487	13
19	54	32	31	45	35	58	63	44	33	11	60	12
20	49	33	35	38	43	58	59	40	44	11	34	11
21	35	49	34	40	160	54	56	37	35	10	27	10
22	28	45	34	28	450	51	53	45	33	9.6	22	11
23	23	39	35	29	300	50	49	34	40	10	20	11
24	23	41	33	38	250	48	47	32	33	9.4	18	11
25	22	39	30	33	200	48	46	31	31	9.0	17	12
26	21	39	31	27	400	47	46	30	29	8.2	15	11
27	21	36	31	26	560	51	46	33	28	8.0	15	11
28	20	31	30	25	250	55	46	32	25	7.5	15	12
29	21	29	33	26	110	72	45	29	22	8.5	17	12
30	61	30	34	22	---	148	44	33	21	7.5	19	13
31	305	---	34	20	---	192	---	31	---	6.5	23	---
TOTAL	951	1207	1000	999	3258	2633	2844	1126	4348	471.2	4966.6	400
MEAN	30.7	40.2	32.3	32.2	112	84.9	94.8	36.3	145	15.2	160	13.3
MAX	305	135	44	50	560	300	350	51	2110	40	3520	34
MIN	12	29	23	20	23	47	44	29	21	6.5	4.6	10
AC-FT	1890	2390	1980	1980	6460	5220	5640	2230	8620	935	9850	793

CAL YR 1979 TOTAL 53639.0 MEAN 147 MAX 10000 MIN 12 AC-FT 106400
WTR YR 1980 TOTAL 24203.8 MEAN 66.1 MAX 3520 MIN 4.6 AC-FT 48010

06807000 MISSOURI RIVER AT NEBRASKA CITY, NE

LOCATION.--Lat 40°40'55", long 95°50'48", in NW1/4NE1/4 sec.9, T.8 N., R.14 E., Otoe County, Hydrologic Unit 10240001, on right bank 0.7 mi (1.1 km) upstream from Waubonsie Highway Bridge at Nebraska City, and at mi 562.6 (905.2 km).

DRAINAGE AREA.--410,000 mi² (1,062,000 km²), approximately. The 3,959 mi² (10,254 km²) in Great Divide basin are not included.

PERIOD OF RECORD.--August 1929 to current year. Gage-height records collected in this vicinity from August 1878 to December 1899 are contained in reports of Missouri River Commission.

REVISED RECORDS.--WSP 761: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 905.36 ft (275.954 m) National Geodetic Vertical Datum of 1929, supplementary adjustment of 1954. See WSP 1918 or 1919 for history of changes prior to Apr. 1, 1963.

REMARKS.--Records good. Flow regulated by upstream main-stem reservoirs. National Weather Service gage-height telemeter at station.

AVERAGE DISCHARGE.--51 years, 35,670 ft³/s (1,010 m³/s), 25,840,000 acre-ft/yr (31.9 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 414,000 ft³/s (11,700 m³/s) Apr. 19, 1952; maximum gage height, 27.66 ft (8.431 m) Apr. 18, 1952; minimum discharge, 1,600 ft³/s (45.3 m³/s) Dec. 31, 1946 (discharge measurement); minimum gage height observed, -0.28 ft (-0.085 m) Dec. 24, 1960, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 74,800 ft³/s (2,120 m³/s) June 4, gage height, 15.53 ft (4.734 m); minimum daily, 19,800 ft³/s (561 m³/s) Jan. 10; minimum gage height, 4.31 ft³/s (0.12 m³/s) Jan. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44900	63600	47000	33800	22600	31800	48500	41800	58800	38400	37700	41000
2	44400	59900	48200	32500	22100	28600	47200	42000	62300	37600	38000	40000
3	44300	55600	47500	32100	23100	26100	47000	41600	60000	38200	38800	39600
4	44100	53200	48800	31900	24200	26700	50600	41000	64300	37800	39500	38400
5	43600	51700	48700	31400	24600	27800	51200	40700	61500	39700	39300	38000
6	43800	52100	47000	30200	25600	27400	48900	40300	56900	38800	39600	38200
7	44000	53900	45400	29700	26100	25500	49300	40700	60000	38300	39200	37200
8	44700	53900	45900	27300	26300	26500	50300	41700	57200	37500	39100	36400
9	44900	53600	42700	21800	26700	31800	50800	41700	54400	37200	39100	35900
10	44900	53100	40200	19800	27300	37000	50500	42000	52400	36900	39800	36300
11	44700	51900	38800	23400	27600	39900	49600	41900	49600	36700	46200	36700
12	44300	51700	39300	24200	27100	39000	47900	42000	48200	36400	44600	37600
13	43600	50500	37800	24300	26900	38100	47200	42500	50100	36200	42300	38300
14	43300	50300	36400	23300	26500	36600	46800	42200	50000	36000	40300	38000
15	44000	49800	37000	26000	26300	35800	45600	43000	57700	35800	38200	38100
16	43700	50000	36100	29500	27200	37300	44700	44300	53000	35900	39300	38600
17	43600	49100	32700	30700	26800	36600	44100	46300	49400	36700	47600	38200
18	43200	48700	30300	31700	25800	34600	42200	47300	46400	39000	45100	38000
19	43500	48700	31300	33000	25900	33400	42500	48500	45400	35500	41800	38100
20	45000	48400	33500	32400	26600	32600	42700	48600	43400	39500	39400	38600
21	45900	49900	33500	32000	29200	32900	42900	47600	42100	35300	37100	39300
22	46800	51200	31000	31100	32300	34600	42400	47100	42100	39200	36500	40500
23	47100	53800	32100	30300	35000	36800	42800	46100	42200	39100	36500	41100
24	46500	53100	34300	29400	35200	39000	42000	45800	42300	38800	36300	40600
25	45300	52300	33500	29000	36100	41500	41700	45300	42300	38700	36100	39500
26	43800	51100	32900	28000	33200	42000	41400	45000	41600	38600	36600	38400
27	44000	50600	32900	26500	32700	41700	41700	45400	40700	39000	37100	38500
28	44300	50900	33400	25700	32500	42100	42000	46500	40400	38700	38000	38700
29	44700	51100	33400	23900	33700	42200	42300	53900	39600	38300	39200	39400
30	46500	48300	33900	24200	---	43300	41700	50100	38600	38100	39300	40300
31	55100	---	32800	23900	---	45500	---	52100	---	37700	39800	---
TOTAL	1392500	1562000	1178300	873000	815200	1094700	1368500	1385000	1492900	1177600	1227400	1157500
MEAN	44920	52070	38010	28160	28110	35310	45620	44680	49760	37990	39590	38580
MAX	55100	63600	48800	33800	36100	45500	51200	53900	64300	39700	47600	41100
MIN	43200	48300	30300	19800	22100	25500	41400	40300	38600	35800	36100	35900
AC-FT	2762000	3098000	2337000	1732000	1617000	2171000	2714000	2747000	2961000	2336000	2435000	2296000

CAL YR 1979 TOTAL 16927800 MEAN 46380 MAX 114000 MIN 20500 AC-FT 33580000
WTR YR 1980 TOTAL 14724600 MEAN 40230 MAX 64300 MIN 19800 AC-FT 29210000

06811500 LITTLE NEMAHA RIVER AT AUBURN, NE

LOCATION.--Lat 40°23'33", long 95°48'46", in NE1/4NE1/4 sec.23, T.5 N., R.14 E., Nemaha County, Hydrologic Unit 10240006, on left bank at downstream side of bridge on U.S. Highway 136, 1 mi (2 km) downstream from Longs Creek and Willow Creek and 1 mi (2 km) east of Auburn.

DRAINAGE AREA.--793 mi² (2,054 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1949 to current year.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 889.87 ft (271.232 m) National Geodetic Vertical Datum of 1929. See WSP 2119 for history of changes prior to July 24, 1967.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--31 years, 279 ft³/s (7.901 m³/s), 202,100 acre-ft/yr (0.249 km³/yr); median of yearly mean discharges, 200 ft³/s (5.664 m³/s), 145,000 acre-ft/yr (0.179 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 164,000 ft³/s (4,640 m³/s) May 9, 1950, gage height, 27.65 ft (8.428 m), from floodmark, from rating curve extended above 49,000 ft³/s (1,390 m³/s) on basis of computations of peak flow through bridge and culvert openings and over highway and railway embankments at gage heights 24.96 ft (7.608 m) and 27.65 ft (8.428 m); minimum daily, 0.87 ft³/s (0.025 m³/s) July 6-8, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,850 ft³/s (137 m³/s) Apr. 3, gage height, 12.98 ft (3.956 m), no peak above base of 5,000 ft³/s (142 m³/s); minimum daily, 20 ft³/s (0.57 m³/s) July 31, Aug. 1, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	490	110	96	74	150	542	172	151	56	20	137
2	49	232	100	88	88	180	530	169	2180	129	21	78
3	49	171	120	84	86	190	2930	162	1420	126	21	55
4	49	148	135	82	92	180	1360	157	385	101	28	45
5	51	166	144	77	96	160	660	151	256	93	29	42
6	52	164	120	75	90	170	500	146	203	94	30	43
7	52	148	124	72	86	180	430	138	170	85	29	40
8	52	138	112	88	90	230	370	134	149	74	21	38
9	52	128	103	96	86	296	330	136	137	67	20	36
10	52	120	115	116	90	1070	305	136	126	61	21	39
11	55	118	105	116	84	546	335	133	120	56	35	40
12	52	115	94	145	80	290	520	135	112	43	36	42
13	52	111	106	134	88	230	405	133	109	41	35	43
14	55	109	110	137	100	265	325	127	103	35	33	38
15	57	106	114	123	106	460	294	121	95	35	36	40
16	54	104	90	158	100	436	276	133	86	31	110	44
17	52	104	80	204	96	309	297	161	81	29	1480	49
18	49	100	108	194	130	232	296	170	83	26	862	46
19	58	100	120	187	150	202	280	159	95	27	213	43
20	74	178	124	159	180	182	264	148	85	28	131	39
21	67	252	124	158	350	174	249	143	82	36	94	35
22	112	307	120	137	600	163	233	134	87	29	76	33
23	139	207	120	114	500	152	217	125	126	28	62	33
24	118	162	109	134	350	155	207	118	116	24	56	34
25	88	143	100	134	290	151	200	112	88	21	50	35
26	77	137	112	100	210	146	194	113	77	33	44	37
27	70	129	110	86	190	151	192	130	76	38	42	37
28	65	114	104	76	210	173	186	113	73	36	43	36
29	62	110	100	72	220	258	182	116	60	25	46	36
30	260	114	102	74	---	1330	178	101	59	22	50	41
31	1280	---	110	64	---	1750	---	114	---	20	87	---
TOTAL	3406	4725	3445	3580	4912	10561	13287	4240	6990	1549	3861	1334
MEAN	110	158	111	115	169	341	443	137	233	50.0	125	44.5
MAX	1280	490	144	204	600	1750	2930	172	2180	129	1480	137
MIN	49	100	80	64	74	146	178	101	59	20	20	33
AC-FT	6760	9370	6830	7100	9740	20950	26350	8410	13860	3070	7660	2650

CAL YR 1979 TOTAL 142375 MEAN 390 MAX 30000 MIN 23 AC-FT 282400
WTR YR 1980 TOTAL 61890 MEAN 169 MAX 2930 MIN 20 AC-FT 122800

06811500 LITTLE NEMAHA RIVER AT AUBURN, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 15...	1110	60	668	8.1	9.0	--	10.4	5.4	K8900	560
NOV 19...	1220	97	600	8.2	11.0	25	10.2	1.6	K6900	1140
DEC 11...	1100	79	573	7.8	.5	--	13.8	3.3	2100	1420
JAN 22...	1000	137	550	6.7	.5	40	14.4	3.0	970	1800
FEB 13...	1720	87	653	7.7	.5	7	11.4	3.7	K760	110
MAR 07...	0815	180	598	8.2	.5	30	11.7	6.0	350	900
APR 17...	1010	304	570	7.9	11.0	65	10.1	2.0	2700	2300
MAY 06...	1200	150	700	7.1	19.0	25	9.0	5.4	K3800	1100
JUN 19...	0930	97	565	8.1	22.5	90	7.5	5.2	--	5000
JUL 10...	1130	64	610	8.1	32.0	15	7.8	5.0	K9100	500
AUG 19...	1415	203	300	8.1	28.0	350	6.4	3.2	K18000	8900
SEP 10...	1400	40	618	7.7	23.0	20	9.6	5.4	K36000	4600

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT 15...	22	423	.58	68.5	1.1	.60	1.0	1.6	2.7	.280
NOV 19...	16	390	.53	103	2.8	.20	1.2	1.4	4.2	.260
DEC 11...	13	388	.53	82.8	2.6	.07	.79	.86	3.5	.530
JAN 22...	11	331	.45	122	2.5	.20	.68	.88	3.4	.360
FEB 13...	14	407	.55	95.6	2.9	.13	.45	.58	3.5	.210
MAR 07...	14	388	.53	189	3.0	.32	.88	1.2	4.2	.300
APR 17...	10	349	.47	286	3.0	.12	1.2	1.3	4.3	.410
MAY 06...	10	369	.50	149	1.8	.19	.91	1.1	2.9	.280
JUN 19...	21	376	.51	98.5	1.1	.14	2.0	2.1	3.2	.410
JUL 10...	17	389	.53	67.2	.95	.43	.87	1.3	2.3	.380
AUG 19...	6.9	199	.27	109	2.0	1.1	1.6	2.7	4.7	.820
SEP 10...	20	426	.58	46.9	.59	.18	1.3	1.5	2.1	.450

DATE	TIME	COLOR (PLAT-INUM COBALT UNITS) (00080)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
NOV 19...	1220	10	260	2	75	18	34	.9	5.6	260	62
FEB 13...	1720	5	290	25	85	20	48	1.1	3.7	270	60
MAY 06...	1200	5	260	20	71	20	34	.9	4.0	240	60
AUG 19...	1415	60	120	10	36	7.3	16	.6	7.3	110	36

06811500 LITTLE NEMAHA RIVER AT AUBURN, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)
NOV 19...	.3	21	401	2.8	.250	5	100	70	<1	0
FEB 13...	.2	22	425	2.9	.180	--	--	60	--	--
MAY 06...	.4	11	363	1.8	.180	4	200	60	<1	0
AUG 19...	.4	8.7	187	.48	.250	--	--	100	--	--

DATE	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG) (71895)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
NOV 19...	3	30	0	50	.1	.1	.0	2	0	5
FEB 13...	--	30	--	160	--	--	--	--	--	--
MAY 06...	6	10	0	30	.1	.0	.1	3	0	4
AUG 19...	--	50	--	10	--	--	--	--	--	--

06813500 MISSOURI RIVER AT RULO, NE

LOCATION.--Lat 40°03'14", long 95°25'12", in NE1/4NW1/4 sec.17, T.1 N., R.18 E., Richardson County, Hydrologic Unit 10240005, on downstream end of middle pier of bridge on U.S. Highway 159 at Rulo, 3.2 mi (5.1 km) upstream from Big Nemaha River, and at mi 498.0 (801.3 km).

DRAINAGE AREA.--414,900 mi² (1,075,000 km²), approximately. The 3,959 mi² (10,254 km²) in Great Divide basin are not included.

PERIOD OF RECORD.--October 1949 to current year in reports of Geological Survey. Gage-height record collected at site 80 ft (24 m) upstream January 1886 to December 1899 published in reports of Missouri River Commission; September 1929 to September 1950 in files of Kansas City Office of Corps of Engineers.

GAGE.--Water-stage recorder. Datum of gage is 837.23 ft (255.188 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 13, 1950, nonrecording gage at site 80 ft (24 m) upstream at same datum.

REMARKS.--Records good. Flow regulated by upstream main-stem reservoirs. National Weather Service gage height telemeter at station.

AVERAGE DISCHARGE.--31 years, 39,710 ft³/s (1,125 m³/s), 28,770,000 acre-ft/yr (35.5 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 358,000 ft³/s (10,100 m³/s) Apr. 22, 1952, gage height, 25.60 ft (7.803 m); minimum daily, 4,420 ft³/s (125 m³/s) Jan. 13, 1957; minimum gage height, 0.65 ft (0.198 m) Jan. 7, 1971, result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1881 reached a stage of 22.9 ft (6.98 m), from floodmark, discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 84,600 ft³/s (2,400 m³/s) June 5, gage height, 16.81 ft (5.124 m); minimum daily, 22,200 ft³/s (629 m³/s) Jan. 10; minimum gage height, 5.34 ft (1.628 m) Jan. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45600	65600	47300	33700	25200	32700	51700	42500	59300	39200	38600	43000
2	44700	61100	47600	34200	24100	29800	49000	42400	68900	40200	38600	40900
3	44500	54600	47800	32800	24100	27700	54700	42500	72200	39600	38600	39200
4	44100	53400	48600	32800	25300	26700	56400	41600	65000	38800	39600	38700
5	44300	53000	49700	32300	25800	27400	54300	41300	73600	39000	40100	37400
6	43800	53000	48400	31100	26300	27600	51800	40700	63000	42800	39800	39900
7	44500	55000	47100	29800	27000	27400	49700	40600	65000	39600	40000	38600
8	44600	56500	47800	28800	27000	26100	50500	40900	67500	38100	39300	37200
9	44800	54800	46800	25600	27200	29100	51800	42200	57700	37000	39200	36900
10	45500	53600	43600	22200	27500	37000	52300	42200	53500	36800	39500	36700
11	45400	52100	41600	22600	27800	42300	51600	42300	50400	36500	42600	36800
12	45700	51600	41000	25000	27600	39400	53400	42200	47700	36400	50200	37200
13	45000	51300	39800	25300	27500	37500	50900	42800	50400	36400	45000	38400
14	43900	51300	37500	25100	27800	35900	49300	42600	49100	36500	41300	38800
15	43800	51100	37400	24900	27600	37100	49100	43100	51500	36000	40100	38400
16	44000	50200	37700	28600	27900	38500	47900	44700	69500	35900	39400	38700
17	43900	49900	34800	31500	28400	38400	47100	47400	52900	36400	46600	39000
18	43300	50100	31300	32900	27600	35200	46500	48100	47600	38000	58200	39100
19	44400	50400	31900	33500	26700	34800	45000	48800	46700	39400	44300	38500
20	46100	50300	33100	33900	26900	34600	45000	48900	44200	39200	41900	38800
21	47000	55500	34700	32700	27900	34600	44700	48300	42300	39600	39100	39200
22	51900	54800	33400	32800	33400	36300	44600	47700	41000	39500	38000	40100
23	51000	55300	32300	32200	36500	38200	43900	47100	42900	39700	37700	41000
24	48400	55600	35800	32000	35800	40500	44500	46800	42500	39400	37100	39600
25	46900	53200	35600	31100	34400	43300	43900	46300	42400	38900	36400	39000
26	45100	51400	34400	30500	33100	44900	44100	45500	42100	39000	36000	38900
27	44100	51500	33900	30600	32700	44000	44000	44900	41100	39500	35900	38400
28	45200	50800	34400	28800	33100	44500	44000	45000	41100	39500	36400	38300
29	45500	51300	34400	26500	34300	45600	43700	52000	40300	39200	37400	38800
30	47700	50100	33800	25800	---	55500	43000	53300	39700	38800	38200	39800
31	57000	---	33600	25800	---	59500	---	50900	---	38800	39300	---
TOTAL	1421700	1598400	1217100	915400	836500	1152100	1448400	1395600	1571100	1193700	1254400	1165300
MEAN	45860	53280	39260	29530	28840	37160	48280	45020	52370	38510	40460	38840
MAX	57000	65600	49700	34200	36500	59500	56400	53300	73600	42800	58200	43000
MIN	43300	49900	31300	22200	24100	26100	43000	40600	39700	35900	35900	36700
AC-FT	2820000	3170000	2414000	1816000	1659000	2285000	2873000	2768000	3116000	2368000	2488000	2311000

CAL YR 1979 TOTAL 17935800 MEAN 49140 MAX 135000 MIN 21000 AC-FT 35580000
WTR YR 1980 TOTAL 15169700 MEAN 41450 MAX 73600 MIN 22200 AC-FT 30090000

06814000 TURKEY CREEK NEAR SENECA, KS

LOCATION.--Lat 39°56'52", long 96°06'30", in SW1/4NW1/4SW1/4 sec.20, T.1 S., R.12 E., Nemaha County, Hydrologic Unit 10240007, at downstream side of highway bridge, 2.0 mi (3.2 km) downstream from Clear Creek, 5.0 mi (8.0 km) upstream from Big Nemaha River, and 8.0 mi (12.9 km) northwest of Seneca.

DRAINAGE AREA.--276 mi^2 (715 km^2).

PERIOD OF RECORD.--October 1948 to current year. Monthly discharge only for some periods, published in WSP 1310.

GAGE.--Water-stage recorder. Datum of gage is 1,037.53 ft (316.239 m), National Geodetic Vertical Datum of 1929. Prior to Oct. 19, 1956, water-stage recorder (occasional operation only) and nonrecording gage on former channel 400 ft (120 m) south of present site at present datum. Oct. 19, 1956, to June 15, 1957, nonrecording gage at highway bridge 1.2 mi (1.9 km) upstream at different datum. June 16, 1957, to Mar. 27, 1958, nonrecording gage at present site and datum.

REMARKS.--Records fair except those for winter months, which are poor.

AVERAGE DISCHARGE.--32 years, 125 ft^3/s (3.540 m^3/s), 90,560 acre-ft/yr (0.112 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,400 ft^3/s (606 m^3/s) Oct. 11, 1973, gage height, 24.77 ft (7.550 m); no flow at times in 1956-57, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,100 ft^3/s (87.8 m^3/s) and maximum (*):

		Discharge		Gage height	
Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)
Mar. 30	1500	*8870	251	22.61	6.892
Apr. 3	1600	3770	107	19.20	5.852

Minimum daily discharge, 0.24 ft^3/s (0.007 m^3/s) Sept. 28, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	235	56	20	34	75	823	79	721	7.0	3.5	43
2	3.9	87	49	17	34	107	744	77	374	6.5	3.5	7.8
3	4.1	58	53	15	33	117	2990	75	574	7.5	3.2	4.9
4	3.7	45	51	20	34	107	924	71	156	13	3.3	3.3
5	4.5	48	54	17	34	95	575	69	116	13	3.8	2.7
6	4.5	47	46	20	33	87	503	66	88	14	6.6	2.4
7	4.7	37	43	15	32	94	438	61	69	12	9.3	1.8
8	5.6	32	37	20	32	98	358	57	55	11	7.5	1.5
9	5.1	31	31	18	32	230	311	58	49	9.6	5.2	1.4
10	4.9	27	35	21	33	756	284	61	44	8.8	3.8	1.2
11	5.0	25	36	25	33	586	415	58	38	8.3	5.0	1.3
12	5.8	24	28	24	33	380	827	56	36	7.5	4.1	1.4
13	7.2	22	36	27	33	258	395	56	34	7.1	4.0	.97
14	7.5	21	39	28	32	396	310	54	32	6.0	4.9	.95
15	8.1	20	42	30	31	843	266	53	31	5.6	7.1	1.1
16	8.8	20	29	33	30	651	228	62	26	5.0	9.9	1.5
17	7.6	18	39	30	29	335	218	108	27	4.5	7.7	1.8
18	8.1	18	38	29	32	218	206	84	25	4.5	6.4	1.3
19	5.9	18	40	63	37	171	184	69	25	4.7	6.8	1.3
20	9.8	464	45	80	45	147	164	65	26	5.1	6.8	1.1
21	6.5	898	48	68	92	119	144	63	29	12	5.0	.95
22	22	566	48	46	377	102	127	76	31	12	3.7	.77
23	26	187	46	31	841	97	117	59	28	8.4	3.0	.62
24	18	110	39	45	535	94	107	54	26	7.1	1.8	.76
25	15	87	30	40	350	99	100	51	21	5.5	1.1	.74
26	13	75	26	31	288	94	96	57	20	4.5	1.4	.39
27	10	66	27	29	167	130	93	50	16	3.0	1.9	.31
28	8.5	52	24	27	158	523	92	43	14	5.9	2.2	.24
29	8.8	41	23	25	73	1760	87	43	12	5.8	2.6	.24
30	357	58	23	26	---	6970	82	39	9.5	4.6	2.6	.50
31	1050	---	22	28	---	3460	---	209	---	3.8	4.9	---
TOTAL	1654.1	3437	1183	948	3547	19199	12208	2083	2752.5	233.3	142.6	88.24
MEAN	53.4	115	38.2	30.6	122	619	407	67.2	91.8	7.53	4.60	2.94
MAX	1050	898	56	80	841	6970	2990	209	721	14	9.9	43
MIN	3.7	18	22	15	29	75	82	39	9.5	3.0	1.1	.24
AC-FT	3280	6820	2350	1880	7040	38080	24210	4130	5460	463	283	175

CAL YR 1979 TOTAL 73760.60 MEAN 202 MAX 9240 MIN 3.7 AC-FT 146300
WTR YR 1980 TOTAL 47475.74 MEAN 130 MAX 6970 MIN .24 AC-FT 94170

06814500 NORTH FORK BIG NEMAHA RIVER AT HUMBOLDT, NE

LOCATION.--Lat 40°09'25", long 95°56'40", in NW1/4NE1/4 sec.10, T.2 N., R.13 E., Richardson County, Hydrologic Unit 10240008, on right pile bent of bridge on State Highway 105 at south edge of Humboldt, 800 ft (244 m) downstream from Long Branch Creek.

DRAINAGE AREA.--548 mi² (1,419 km²).

PERIOD OF RECORD.--October 1952 to current year. Prior to October 1967 published as North Fork Nemaha River at Humboldt.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder for stages above 6.8 ft (2.07 m); nonrecording gage read twice daily. Datum of gage is 944.44 ft (287.865 m) National Geodetic Vertical Datum of 1929. Prior to Apr. 5, 1968, nonrecording gage at present site and datum.

REMARKS.--Records fair except those for winter period, which are poor.

AVERAGE DISCHARGE.--28 years, 196 ft³/s (5.551 m³/s), 142,000 acre-ft/yr (0.175 km³/yr); median of yearly mean discharges, 140 ft³/s (3.965 m³/s), 101,000 acre-ft/yr (0.125 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 51,000 ft³/s (1,440 m³/s) July 10, 1958, gage height, 31.70 ft (9.662 m); minimum daily, 0.07 ft³/s (0.002 m³/s) July 22, 23, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,000 ft³/s (142 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Oct. 30	2200	6690	189	10.80	3.292	Apr. 3	0700	8220	233	a11.80	3.597
Mar. 29	1330	*10400	295	a13.15	4.008						

a From floodmark.

Minimum daily discharge, 4.4 ft³/s (0.12 m³/s) Aug. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	339	86	67	60	150	736	107	559	30	4.4	65
2	28	146	84	69	72	140	755	118	1980	49	4.7	43
3	28	89	94	68	64	160	4980	118	683	57	4.7	30
4	28	76	92	70	66	170	1160	107	209	51	5.4	25
5	30	123	91	70	70	145	609	102	143	38	8.6	23
6	28	98	78	70	60	155	462	100	102	39	48	23
7	30	74	76	66	54	175	373	95	89	30	20	22
8	29	67	72	66	58	200	324	91	76	26	14	22
9	28	71	74	64	49	250	240	87	72	24	11	22
10	28	60	76	90	50	800	224	84	69	21	19	22
11	30	60	74	86	49	640	530	84	69	19	38	23
12	31	60	48	80	48	280	599	84	67	20	38	22
13	32	60	68	100	50	231	300	87	67	20	35	25
14	33	58	70	98	70	462	250	78	67	20	34	21
15	35	60	90	100	80	1210	224	78	60	18	42	25
16	39	52	76	105	76	710	206	93	57	15	55	25
17	36	52	64	102	80	296	218	120	54	20	221	23
18	35	62	86	102	96	187	206	100	58	15	324	22
19	35	58	80	102	100	164	190	89	63	16	89	23
20	35	1010	76	102	110	146	178	89	57	14	55	18
21	35	918	78	110	250	128	169	93	57	26	43	18
22	65	428	78	102	700	115	161	93	57	14	36	18
23	57	169	80	87	600	120	137	74	71	12	36	17
24	38	115	80	98	300	123	134	74	57	15	34	18
25	41	112	82	100	250	123	128	71	54	13	29	17
26	38	98	80	82	209	118	128	71	49	16	29	17
27	35	72	78	66	178	126	128	80	51	16	28	18
28	31	62	72	62	169	282	126	65	33	12	28	19
29	34	76	69	60	160	1690	120	71	32	10	28	18
30	1630	90	72	62	---	6830	118	67	34	8.2	28	17
31	2000	---	72	54	---	2100	---	110	---	5.4	36	---
TOTAL	4630	4815	2396	2560	4178	18426	14113	2780	5096	689.6	1425.8	701
MEAN	149	161	77.3	82.6	144	594	470	89.7	170	22.2	46.0	23.4
MAX	2000	1010	94	110	700	6830	4980	120	1980	57	324	65
MIN	28	52	48	54	48	115	118	65	32	5.4	4.4	17
AC-FT	9180	9550	4750	5080	8290	36550	27990	5510	10110	1370	2830	1390

CAL YR 1979 TOTAL 105371.0 MEAN 289 MAX 15500 MIN 28 AC-FT 209000
WTR YR 1980 TOTAL 61810.4 MEAN 169 MAX 6830 MIN 4.4 AC-FT 122600

06815000 BIG NEMAHA RIVER AT FALLS CITY, NE

LOCATION.--Lat 40°02'00", long 95°35'30", on line between secs.22 and 23, T.1 N., R.16 E., Richardson County, Hydrologic Unit 10240008, near right bank on downstream side of pier of bridge on U.S. Highway 73, 1 mi (2 km) south of Falls City and 13 mi (21 km) upstream from mouth.

DRAINAGE AREA.--1,340 mi² (3,471 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1944 to current year. Prior to October 1967, published as Nemaha River at Falls City.

REVISED RECORDS.--WSP 1086: Drainage area.

GAGE.--Water-stage recorder for stages above 6.1 ft (1.86 m); nonrecording gage read twice daily. Datum of gage is 861.24 ft (262.506 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 16, 1952, nonrecording gage at same site and datum.

REMARKS.--Records fair except those for winter period, which are poor.

AVERAGE DISCHARGE.--36 years, 587 ft³/s (16.62 m³/s), 425,300 acre-ft/yr (0.524 km³/yr); median of yearly mean discharges, 470 ft³/s (13.31 m³/s), 341,000 acre-ft/yr (0.420 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 71,600 ft³/s (2,030 m³/s) Oct. 11, 1973, gage height, 31.40 ft (9.571 m); minimum daily discharge, 3.0 ft³/s (0.085 m³/s) July 9, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 25,700 ft³/s (728 m³/s) Mar. 30 at 1830, gage height, 20.01 ft (6.099 m), no other peak above base of 15,000 ft³/s (425 m³/s); minimum daily, 30 ft³/s (0.85 m³/s) Aug. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	89	2320	240	209	150	280	3860	443	2280	131	30	169
2	80	720	220	157	200	300	2280	443	2630	161	34	197
3	72	510	350	185	190	430	10100	428	1680	161	32	143
4	75	407	500	175	200	559	5110	416	934	154	32	82
5	75	387	399	169	220	465	2060	404	549	138	38	67
6	73	443	315	191	210	462	1470	384	456	126	51	58
7	72	334	300	190	190	484	1230	334	396	115	82	55
8	73	292	274	180	200	481	907	339	364	109	53	53
9	75	279	250	230	190	601	870	323	302	102	37	51
10	75	255	267	292	180	1950	783	318	284	98	40	44
11	75	252	260	284	190	2130	1030	321	262	93	68	45
12	77	250	210	257	170	1140	2430	307	243	79	76	50
13	72	231	240	305	205	736	1390	300	224	80	71	49
14	84	222	300	300	230	744	949	287	218	63	70	48
15	84	224	280	307	210	2220	862	287	199	62	95	51
16	92	207	230	260	180	1880	787	305	177	61	148	57
17	92	205	200	240	190	1100	870	484	179	59	147	61
18	95	209	240	236	220	655	800	443	165	59	384	57
19	92	205	287	274	240	536	732	396	167	59	240	63
20	100	1120	289	320	250	465	679	364	163	58	129	53
21	104	4010	337	348	350	453	647	428	163	67	95	49
22	1400	2020	321	329	600	419	613	350	163	71	79	45
23	790	880	287	277	2300	407	552	334	220	68	70	48
24	350	480	262	269	1500	410	536	292	201	59	63	48
25	200	375	238	277	1200	428	516	272	173	58	53	51
26	170	335	209	205	700	425	529	272	169	59	53	51
27	133	315	222	170	580	440	506	277	161	61	53	48
28	130	295	218	165	450	757	484	248	139	49	51	48
29	125	245	216	160	330	4670	471	231	132	46	50	53
30	1180	250	216	180	---	18500	459	222	131	38	59	51
31	9470	---	216	140	---	13600	---	364	---	32	71	---
TOTAL	15674	18277	8393	7321	12025	58127	44512	10616	13524	2576	2554	1945
MEAN	506	609	271	236	415	1875	1484	342	451	83.1	82.4	64.8
MAX	9470	4010	500	348	2300	18500	10100	484	2630	161	384	197
MIN	72	205	200	140	150	280	459	222	131	32	30	44
AC-FT	31090	36250	16650	14520	23850	115300	88290	21060	26820	5110	5070	3860

CAL YR 1979 TOTAL 331062 MEAN 907 MAX 37200 MIN 72 AC-FT 656700
WTR YR 1980 TOTAL 195544 MEAN 534 MAX 18500 MIN 30 AC-FT 387900

06815000 BIG NEMAHA RIVER AT FALLS CITY, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951, 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT										
15...	1200	87	745	8.3	11.0	10	11.9	6.0	K100	260
NOV										
19...	1400	199	710	8.2	11.0	20	9.6	1.4	550	300
DEC										
11...	1330	260	672	8.1	2.0	--	12.5	1.3	K7700	700
JAN										
22...	1245	332	635	7.2	1.0	75	13.7	3.2	1900	K20000
FEB										
13...	1430	206	762	7.9	.5	3	14.6	3.6	K50	K60
MAR										
06...	1545	430	710	7.9	.0	60	13.5	5.6	300	300
APR										
17...	0800	907	630	7.8	11.5	120	10.4	1.3	1400	2700
MAY										
06...	1330	383	690	8.1	21.0	20	12.5	4.4	K17	K44
JUN										
18...	1630	165	525	8.5	30.5	30	15.1	9.9	100	400
JUL										
10...	0930	98	600	7.8	29.5	15	7.8	7.8	2000	920
AUG										
19...	1815	198	350	8.1	31.0	650	5.3	8.8	K18000	20000
SEP										
10...	103[illegible]	45	711	8.3	27.0	20	8.9	4.2	550	260

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT										
15...	31	458	.62	108	.56	.07	.76	.83	1.4	.110
NOV										
19...	23	467	.64	251	2.9	.05	.83	.88	3.8	.200
DEC										
11...	18	477	.65	335	3.0	.06	.83	.89	3.9	.200
JAN										
22...	19	385	.52	345	2.4	.23	.77	1.0	3.4	.420
FEB										
13...	19	486	.66	270	2.9	.11	.53	.64	3.5	.170
MAR										
06...	20	466	.63	541	2.9	.28	.65	.93	3.8	.320
APR										
17...	13	412	.56	1010	2.8	.04	1.5	1.5	4.3	.450
MAY										
06...	13	359	.49	371	1.2	.12	1.1	1.2	2.4	.150
JUN										
18...	17	337	.46	150	.27	.04	1.7	1.7	2.0	--
JUL										
10...	26	388	.53	103	.00	.15	1.5	1.6	1.6	.210
AUG										
19...	13	223	.30	119	2.8	.54	4.0	4.5	7.3	1.200
SEP										
10...	34	543	.74	66.9	.00	.00	1.1	1.1	1.1	.250

06815000 BIG NEMAHA RIVER AT FALLS CITY, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLOR (PLAT-INUM COBALT UNITS) (00080)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
NOV											
19...	1400	5	340	40	100	22	32	.8	5.7	300	87
FEB											
13...	1430	50	370	74	110	24	33	.7	3.4	300	88
MAY											
06...	1330	5	290	57	77	23	29	.7	3.8	230	78
AUG											
19...	1815	20	140	30	41	9.1	17	.6	5.8	110	42

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)
NOV										
19...	.3	21	485	2.9	.180	4	200	70	3	0
FEB										
13...	.2	17	489	2.9	.170	--	--	100	--	--
MAY										
06...	.3	3.9	372	1.2	.040	3	100	70	<1	0
AUG										
19...	.4	8.7	224	2.8	.220	--	--	90	--	--

DATE	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG) (71895)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV										
19...	14	560	0	90	.1	.1	.0	3	0	140
FEB										
13...	--	10	--	70	--	--	--	--	--	--
MAY										
06...	10	10	0	8	.1	.1	.0	3	0	3
AUG										
19...	--	60	--	10	--	--	--	--	--	--

06821500 ARIKAREE RIVER AT HAIGLER, NE

LOCATION.--Lat 40°01'45", long 101°58'10", in NE1/4NE1/4 sec.29, T.1 N., R.41 W., Dundy County, Hydrologic Unit 10250001, on left bank 57 ft (17 m) downstream from bridge on U.S. Highway 34, 1.3 mi (2.1 km) upstream from Burlington Northern Inc. bridge, 1.8 mi (2.9 km) upstream from confluence with North Fork Republican River, 2 mi (3 km) northwest of Haigler, and 3.2 mi (5.1 km) downstream from Kansas-Nebraska State line.

DRAINAGE AREA.--1,640 mi² (4,250 km²), approximately, of which about 980 mi² (2,540 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1931 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1919: 1951, 1954, 1956, 1960. WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,250.98 ft (990.899 m) National Geodetic Vertical Datum of 1929. See WSP 1919 for history of changes prior to Sept. 29, 1964.

REMARKS.--Records fair. Natural flow affected by ground-water withdrawals and diversions for irrigation of about 1,500 ft³/s (42.5 m³/s) in Colorado and by return flow from Pioneer Canal.

AVERAGE DISCHARGE.--49 years, 23.4 ft³/s (0.663 m³/s), 16,950 acre-ft/yr (20.9 hm³/yr); median of yearly mean discharges, 18 ft³/s (0.510 m³/s), 13,000 acre-ft/yr (16.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 50,000 ft³/s (1,420 m³/s) May 31, 1935, gage height, 11.2 ft (3.41 m), site and datum then in use, from floodmarks, from rating curve extended above 3,800 ft³/s (108 m³/s) on basis of slope-area measurement of peak flow; no flow for some periods in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 420 ft³/s (11.9 m³/s) June 20, gage height, 8.20 ft (2.499 m), no peak above base of 800 ft³/s (22.7 m³/s); minimum daily, 0.14 ft³/s (0.004 m³/s) Aug. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	11	1.5	1.4	3.6	5.7	18	53	21	15	.53	102
2	4.0	13	1.2	1.4	5.6	6.3	14	42	20	8.5	.69	22
3	2.5	12	1.3	1.2	4.7	28	13	34	16	13	1.1	20
4	.85	12	1.5	1.3	6.2	28	41	30	12	18	.38	17
5	5.2	15	1.9	1.6	16	11	80	28	10	16	.25	16
6	8.4	15	1.8	3.0	22	17	83	27	6.8	10	.20	12
7	2.9	15	1.5	5.0	15	23	85	32	4.1	4.2	.17	13
8	5.0	15	1.4	3.6	7.2	16	76	26	2.1	2.9	.16	15
9	9.3	6.5	1.4	2.7	7.4	18	88	24	3.2	3.4	.22	73
10	11	3.2	1.4	2.7	12	15	88	24	3.3	4.9	.27	24
11	6.9	2.4	1.6	1.4	15	15	74	20	6.0	5.9	3.1	15
12	5.7	1.7	1.5	1.3	18	16	60	21	7.0	3.8	.30	13
13	7.6	1.4	1.4	1.9	21	14	54	19	3.8	2.2	.14	11
14	9.4	1.3	1.4	6.1	20	15	51	20	5.1	1.9	.29	11
15	12	1.3	1.3	15	14	15	47	20	1.3	1.2	4.1	11
16	9.4	1.2	1.2	15	9.4	13	44	60	3.0	.97	6.1	13
17	8.8	1.1	1.5	14	9.9	14	41	59	1.3	1.5	9.5	14
18	11	1.1	1.2	13	19	16	38	51	4.3	1.5	12	12
19	11	1.1	1.2	7.2	18	14	37	40	24	.91	12	9.7
20	10	1.4	1.2	1.5	17	14	35	37	198	4.3	10	10
21	12	1.7	1.2	2.1	17	14	33	31	56	.88	7.3	14
22	14	1.9	1.2	4.1	16	13	30	26	52	.65	5.6	14
23	15	2.0	1.2	7.2	16	12	30	23	41	.46	10	13
24	17	1.8	1.1	15	15	12	33	21	33	23	8.2	13
25	18	1.8	1.1	15	16	13	30	18	21	6.9	6.7	14
26	18	1.7	1.1	7.2	17	14	28	15	18	81	6.3	9.0
27	14	1.3	1.1	4.4	16	15	29	16	16	35	12	8.3
28	12	1.3	1.2	2.2	16	23	28	28	16	14	12	8.7
29	13	1.9	1.3	1.5	12	58	28	27	14	5.5	14	8.8
30	16	2.0	1.2	1.2	---	66	55	24	18	1.4	13	5.7
31	23	---	1.5	1.1	---	35	---	23	---	.49	6.6	---
TOTAL	315.45	149.1	41.6	161.3	402.0	589.0	1391	919	637.3	289.36	163.20	542.2
MEAN	10.2	4.97	1.34	5.20	13.9	19.0	46.4	29.6	21.2	9.33	5.26	18.1
MAX	23	15	1.9	15	22	66	88	60	198	81	14	102
MIN	.85	1.1	1.1	1.1	3.6	5.7	13	15	1.3	.46	.14	5.7
AC-FT	626	296	83	320	797	1170	2760	1820	1260	574	324	1080

CAL YR 1979 TOTAL 3219.91 MEAN 8.82 MAX 328 MIN .35 AC-FT 6390
WTR YR 1980 TOTAL 5600.51 MEAN 15.3 MAX 198 MIN .14 AC-FT 11110

06823000 NORTH FORK REPUBLICAN RIVER AT COLORADO-NEBRASKA STATE LINE

LOCATION.--Lat 40°04'10", long 102°03'05", in sec.10, T.1 N., R.42 W., Dundy County, Nebraska, Hydrologic Unit 10250002, on right bank 100 ft (30 m) east of Colorado-Nebraska State line and 9.5 mi (15.3 km) upstream from confluence with Arikaree River.

DRAINAGE AREA.--1,360 mi² (3,520 km²), approximately, of which about 100 mi² (260 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1930 to current year. Prior to October 1932, published as North Fork of Arikaree River at Colorado-Nebraska State line. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1240: 1947(M). WSP 1390: 1934. WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Steel piling control since January 1965. Datum of gage is 3,336.09 ft (1,016.840 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 17, 1934, nonrecording gage at present site and datum.

REMARKS.--Records fair. Natural flow affected by diversion in Pioneer Canal for irrigation of about 2,700 acres (10.9 km²) in Colorado and Nebraska.

AVERAGE DISCHARGE.--50 years, 47.6 ft³/s (1.348 m³/s), 34,490 acre-ft/yr (42.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,110 ft³/s (59.8 m³/s) Apr. 28, 1947, gage height, 5.92 ft (1.804 m), from rating curve extended above 800 ft³/s (22.7 m³/s) on basis of slope-area measurement of peak flow; no flow Aug. 25, 26, 1932.

EXTREMES FOR CURRENT YEAR.--Maximum discharge about 210 ft³/s (5.95 m³/s) Apr. 4 at 1100, gage height, 1.86 ft (0.567 m), indefinite stage-discharge relation, no other peak above base of 130 ft³/s (3.68 m³/s); minimum daily, 3.0 ft³/s (0.085 m³/s) Mar. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.3	39	52	52	68	52	118	79	26	6.1	9.6	21
2	7.1	37	54	54	72	53	114	75	23	6.2	5.4	27
3	7.2	38	55	53	73	53	160	70	23	33	4.0	26
4	8.9	39	56	52	70	53	170	67	20	23	4.0	23
5	7.3	39	58	52	73	52	120	65	15	26	5.4	24
6	8.8	39	57	55	70	51	92	65	10	30	5.4	23
7	9.9	40	56	46	71	53	98	69	12	18	6.3	22
8	9.9	43	55	48	64	52	96	65	14	12	7.8	22
9	10	47	55	50	52	53	97	63	11	8.5	4.5	42
10	13	50	58	50	56	53	96	61	9.5	7.6	6.7	48
11	11	50	55	52	59	54	92	60	9.0	7.6	7.2	29
12	12	52	53	54	58	53	86	60	7.0	7.1	6.9	20
13	12	51	53	55	59	52	81	57	5.5	5.7	6.6	19
14	12	52	53	61	58	53	79	58	4.5	6.4	16	21
15	9.0	52	54	62	58	53	77	58	4.0	6.2	15	20
16	6.7	53	48	62	58	52	76	78	5.0	6.7	13	20
17	8.6	53	50	61	59	51	75	79	7.2	7.5	12	18
18	7.2	54	53	61	62	51	71	73	7.0	5.4	12	17
19	9.7	55	54	61	67	51	68	68	10	4.5	8.8	17
20	12	59	54	61	67	52	66	73	38	4.5	7.6	17
21	17	61	55	63	64	53	64	65	35	4.5	9.1	17
22	22	52	55	62	56	52	63	63	33	4.0	9.2	16
23	22	54	55	62	56	52	63	59	27	5.4	6.5	15
24	17.	56	55	61	54	53	63	56	17	9.6	6.5	14
25	19	54	55	64	53	55	62	56	8.8	10	8.1	15
26	18	55	54	60	53	57	62	55	6.2	15	8.3	14
27	26	54	56	54	52	60	61	31	4.5	9.6	19	13
28	27	50	58	54	52	45	61	34	4.0	8.5	21	12
29	29	48	57	56	52	7.2	63	31	6.4	6.4	12	11
30	31	50	52	60	---	3.0	78	30	9.6	5.1	13	10
31	36	---	50	64	---	86	---	28	---	6.3	13	---
TOTAL	452.6	1476	1685	1762	1766	1570.2	2572	1851	412.2	316.4	289.9	613
MEAN	14.6	49.2	54.4	56.8	60.9	50.7	85.7	59.7	13.7	10.2	9.35	20.4
MAX	36	61	58	64	73	86	170	79	38	33	21	48
MIN	6.3	37	48	46	52	3.0	61	28	4.0	4.0	4.0	10
AC-FT	898	2930	3340	3490	3500	3110	5100	3670	818	628	575	1220

CAL YR 1979 TOTAL 11718.0 MEAN 32.1 MAX 69 MIN 2.5 AC-FT 23240
WTR YR 1980 TOTAL 14766.3 MEAN 40.3 MAX 170 MIN 3.0 AC-FT 29290

KANSAS RIVER BASIN

06823500 BUFFALO CREEK NEAR HAIGLER, NE

LOCATION (REVISED).--Lat 40°02'22", long 101°51'57", in SE1/4NW1/4 sec.20, T.1 N., R.40 W., Dundy County, Hydrologic Unit 10250002, on left bank 10 ft (3 m) upstream from county highway bridge, 0.4 mi (0.6 km) upstream from mouth, and 4 mi (6 km) northeast of Haigler.

DRAINAGE AREA.--260 mi² (670 km²), approximately, of which about 13 mi² (34 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1940 to current year.

REVISED RECORDS.--WSP 2119: 1948-50(M), 1957(M), drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,188.90 ft (971.977 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 19, 1980, at site 0.5 mi (0.8 km) upstream at datum 15.67 ft (4.776 m) higher.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow affected by diversion about 1 mi (2 km) upstream for irrigation of 880 acres (3.56 km²).

AVERAGE DISCHARGE.--40 years, 7.59 ft³/s (0.215 m³/s), 5,500 acre-ft/yr (6.78 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 140 ft³/s (3.96 m³/s) June 27, 1948, gage height, 4.37 ft (1.332 m), site and datum then in use; maximum gage height, 5.93 ft (1.807 m) Jan. 3, 1976, site and datum then in use, backwater from ice; no flow at times in 1955, 1968, 1973-80.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 29 ft³/s (0.82 m³/s) Mar. 31 at 1630, gage height, 5.53 ft (1.686 m), site and datum then in use, no other peak above base of 20 ft³/s (0.57 m³/s); maximum gage height, 5.54 ft (1.689 m), Jan. 27, site and datum then in use, backwater from ice; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.11	7.3	4.2	7.0	6.4	7.5	24	12	8.2	.49	.00	4.0
2	.07	6.6	5.6	7.2	6.6	8.0	21	10	8.1	.65	.00	3.9
3	.05	6.4	6.8	7.4	8.0	9.0	22	8.9	7.8	1.9	.00	1.7
4	.04	6.5	6.8	7.4	8.6	8.6	18	8.3	8.0	1.5	.00	1.1
5	.04	6.5	6.7	7.4	9.4	8.0	18	8.0	7.7	.18	.00	1.0
6	.04	6.6	6.6	7.0	9.0	8.0	18	8.3	7.8	.18	.00	1.5
7	.02	6.5	6.5	4.4	7.4	8.7	17	8.5	7.8	.21	.00	2.0
8	.02	6.5	6.7	4.4	7.0	9.0	16	8.3	7.9	.21	.00	2.2
9	.09	6.4	6.7	4.6	5.6	8.4	16	8.0	8.1	.18	.00	3.0
10	5.6	6.5	6.8	4.8	5.8	8.0	15	7.9	8.1	.18	.00	3.0
11	5.6	6.5	6.8	6.0	6.2	7.5	14	7.8	3.0	.16	.00	3.0
12	5.6	6.5	6.8	6.5	6.5	7.7	13	8.0	3.2	.17	.00	3.5
13	4.8	6.5	8.2	8.5	7.0	7.8	13	7.7	3.9	.16	.00	3.5
14	5.5	6.1	8.6	10	6.6	7.5	12	7.8	.00	.15	.00	4.0
15	5.4	6.3	7.6	9.0	5.8	7.4	12	8.0	.24	.14	.00	4.0
16	5.2	6.4	6.7	8.4	5.0	7.3	11	13	1.5	.15	.21	4.5
17	5.3	6.4	7.9	8.2	5.2	7.5	11	12	1.5	.12	.00	4.5
18	5.3	6.5	9.7	7.8	6.0	7.6	11	10	1.2	.10	.00	5.0
19	5.3	6.5	7.8	7.8	7.8	7.4	10	8.9	2.2	.06	.00	5.3
20	5.4	7.1	7.3	7.0	8.4	7.5	9.7	8.4	3.0	.03	.00	5.2
21	5.7	5.0	7.3	6.2	9.2	7.3	9.0	7.8	2.2	.00	.00	5.5
22	6.5	3.0	7.5	6.8	9.5	7.2	8.7	7.4	1.4	.00	.00	5.6
23	6.3	6.6	7.6	7.6	8.9	7.2	9.6	7.3	1.1	.00	.00	5.7
24	6.0	9.0	8.2	8.0	8.6	7.4	9.2	7.3	.82	.00	.00	6.1
25	6.0	7.5	7.6	8.0	8.3	7.3	8.5	7.0	.56	.14	.00	6.0
26	6.0	6.8	7.8	4.2	8.5	7.8	8.6	6.8	.48	.61	.33	5.8
27	5.9	6.6	8.0	3.8	8.4	7.8	8.6	6.8	.29	.00	1.5	5.6
28	6.0	4.0	8.8	4.6	8.8	5.1	8.5	7.8	.16	.00	1.0	5.5
29	6.0	3.6	8.8	6.0	8.0	5.3	8.9	8.4	.24	.00	.65	5.6
30	6.5	3.6	8.0	6.0	---	6.7	13	8.5	.53	.00	.50	5.6
31	7.8	---	7.4	6.4	---	17	---	8.2	---	.00	1.1	---
TOTAL	128.18	186.3	227.8	208.4	216.5	244.5	394.3	263.1	107.02	7.67	5.29	122.9
MEAN	4.13	6.21	7.35	6.72	7.47	7.89	13.1	8.49	3.57	.25	.17	4.10
MAX	7.8	9.0	9.7	10	9.5	17	24	13	8.2	1.9	1.5	6.1
MIN	.02	3.0	4.2	3.8	5.0	5.1	8.5	6.8	.00	.00	.00	1.0
AC-FT	254	370	452	413	429	485	782	522	212	15	10	244

CAL YR 1979 TOTAL 1911.33 MEAN 5.24 MAX 11 MIN .00 AC-FT 3790
WTR YR 1980 TOTAL 2111.96 MEAN 5.77 MAX 24 MIN .00 AC-FT 4190

06824000 ROCK CREEK AT PARKS, NE

LOCATION.--Lat 40°02'30", long 101°43'40", in SW1/4NE1/4 sec.21, T.1 N., R.39 W., Dundy County, Hydrologic Unit 10250002, on right bank at west edge of Parks, 100 ft (30 m) downstream from county road bridge and 0.5 mi (0.8 km) upstream from mouth.

DRAINAGE AREA.--20 mi² (52 km²), approximately, of which about 17 mi² (44 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1940 to current year.

REVISED RECORDS.--WSP 1630: 1951(M). WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,093.35 ft (942.853 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor. One diversion about 2 mi (3 km) above station for irrigation of 215 acres (870,000 m²); flow regulated at times by reservoir at State fish hatchery 7 mi (11 km) upstream.

AVERAGE DISCHARGE.--40 years, 14.0 ft³/s (0.396 m³/s), 10,140 acre-ft/yr (12.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 493 ft³/s (14.0 m³/s) July 5, 1965, gage height, 6.00 ft (1.829 m), from rating curve extended above 40 ft³/s (1.13 m³/s) on basis of slope-conveyance study; minimum daily, 2.6 ft³/s (0.074 m³/s) Nov. 19, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 22 ft³/s (0.62 m³/s) Mar. 30, 31, Apr. 1, 5, 6, 7, gage height, 1.95 ft (0.594 m), no peak above base of 25 ft³/s (0.71 m³/s); maximum gage height, 2.74 ft (0.835 m) Mar. 28, backwater from ice; minimum daily discharge, 8.9 ft³/s (0.25 m³/s) June 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	15	13	13	12	14	21	15	11	10	10	13
2	10	14	14	13	13	14	21	14	11	11	10	12
3	10	14	14	13	14	15	21	13	11	14	10	12
4	10	14	15	13	15	15	20	13	10	13	10	12
5	11	14	15	13	15	14	20	12	10	12	10	12
6	11	13	14	13	15	14	21	12	9.9	11	10	11
7	10	12	14	11	15	14	20	13	10	11	9.7	11
8	11	13	15	10	14	15	18	14	9.6	10	9.6	10
9	10	13	15	10	13	14	17	13	9.6	10	9.6	14
10	11	13	15	10	13	14	17	12	9.9	10	9.6	14
11	11	12	14	12	14	14	17	12	9.8	10	9.7	13
12	11	12	13	14	14	14	15	12	9.5	10	9.4	13
13	11	12	13	14	14	14	15	12	9.1	9.9	9.2	12
14	11	12	14	13	14	13	14	12	8.9	9.4	10	12
15	11	12	14	13	14	12	14	12	9.0	9.8	12	12
16	12	12	13	13	14	12	14	17	13	9.8	13	11
17	12	12	16	14	14	12	15	17	15	9.6	16	11
18	12	12	14	13	14	12	15	16	13	9.5	13	11
19	11	12	14	14	15	12	14	14	15	9.0	12	11
20	9.9	14	14	13	16	13	14	13	16	9.2	11	11
21	11	13	14	12	16	13	14	12	14	9.5	11	11
22	12	12	14	13	16	13	14	12	13	9.5	11	11
23	12	13	14	13	16	13	14	12	12	10	10	11
24	12	14	14	14	15	13	14	12	12	12	10	11
25	12	14	14	14	15	13	14	12	11	11	10	12
26	12	14	14	12	14	14	13	11	11	12	12	11
27	12	14	14	11	14	15	14	11	11	11	12	11
28	12	13	14	11	14	14	14	10	9.8	10	12	12
29	12	12	15	11	14	15	14	10	9.8	10	11	12
30	14	12	13	12	---	20	19	11	10	9.6	11	11
31	16	---	12	12	---	22	---	11	---	10	11	---
TOTAL	353.9	388	435	387	416	436	487	392	333.9	322.8	334.8	351
MEAN	11.4	12.9	14.0	12.5	14.3	14.1	16.2	12.6	11.1	10.4	10.8	11.7
MAX	16	15	16	14	16	22	21	17	16	14	16	14
MIN	9.9	12	12	10	12	12	13	10	8.9	9.0	9.2	10
AC-FT	702	770	863	768	825	865	966	778	662	640	664	696

CAL YR 1979 TOTAL 4356.3 MEAN 11.9 MAX 58 MIN 7.7 AC-FT 8640
WTR YR 1980 TOTAL 4637.4 MEAN 12.7 MAX 22 MIN 8.9 AC-FT 9200

06824500 REPUBLICAN RIVER AT BENKELMAN, NE

LOCATION.--Lat 40°01'55", long 101°32'30", in SE1/4SW1/4 sec.19, T.1 N., R.37 W., Dundy County, Hydrologic Unit 10250002, on left bank at downstream side of bridge on U.S. Highway 34, 0.6 mi (1.0 km) south of Burlington Northern Inc. track, 1 mi (2 km) southwest of Benkelman, 2 mi (3 km) upstream from South Fork Republican River, and 11 mi (18 km) downstream from Rock Creek.

DRAINAGE AREA.--4,830 mi² (12,500 km²), approximately, of which about 1,230 mi² (3,190 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1894 to September 1895 (published as North Fork Republican River at Benkelman), October 1902 to November 1906, October 1946 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1895. WSP 1919: 1952, 1956. WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,975.34 ft (906.884 m) National Geodetic Vertical Datum of 1929. Prior to Dec. 17, 1946, nonrecording gages at several sites within 1.5 mi (2.4 km) of present site at various datums; Dec. 17, 1946, to May 26, 1972, water-stage recorder at present site and datum and May 27, 1972 to Aug. 11, 1978 at site 150 ft (46 m) downstream at same datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation development above station.

AVERAGE DISCHARGE.--39 years, 87.6 ft³/s (2.481 m³/s), 63,470 acre-ft/yr (78.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,040 ft³/s (171 m³/s) Sept. 7, 1951, gage height, 7.58 ft (2.310 m); maximum gage height, 7.80 ft (2.377 m) Aug. 9, 1950; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1826, 13.1 ft (3.99 m) May 31, 1935, from elevations furnished by State Highway Department.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 550 ft³/s (15.6 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 5	0330	710	20.1	4.06	1.237
June 20	2145	*1850	52.4	4.75	1.448

Minimum daily discharge, 3.0 ft³/s (0.085 m³/s) July 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.1	88	60	65	86	90	121	260	63	30	8.7	18
2	8.0	79	68	92	88	72	141	218	74	30	7.1	136
3	8.6	64	73	92	96	78	168	186	62	33	6.8	37
4	8.6	62	72	94	100	84	241	158	55	26	7.7	32
5	8.6	67	70	94	110	87	385	138	47	28	5.9	29
6	9.0	72	68	90	105	90	357	125	40	26	5.3	29
7	10	73	68	76	105	108	384	138	37	21	3.9	26
8	12	71	80	70	96	99	319	139	33	16	3.4	28
9	12	72	79	70	90	105	503	117	29	13	3.9	53
10	14	60	71	72	100	102	494	108	27	10	6.4	112
11	18	53	71	78	112	94	366	94	26	9.8	8.0	81
12	18	49	64	84	112	95	275	90	25	9.0	4.8	52
13	18	59	68	90	120	99	260	87	24	6.6	3.3	40
14	22	65	70	100	100	101	252	81	22	4.8	4.7	39
15	23	70	77	115	85	94	244	78	17	4.4	7.9	39
16	25	75	70	120	80	97	230	145	38	4.0	12	41
17	28	75	60	105	85	91	224	228	40	3.4	16	43
18	29	65	75	90	100	93	203	200	38	3.0	15	40
19	29	70	90	85	125	92	191	175	49	3.3	14	38
20	31	88	90	80	160	86	179	145	383	3.2	12	35
21	36	81	85	72	168	88	164	154	367	3.5	10	35
22	49	82	84	76	143	89	144	125	129	3.2	10	33
23	47	80	82	84	132	89	147	112	129	6.5	9.6	34
24	48	82	74	100	119	85	146	109	99	7.6	8.3	34
25	50	84	76	110	112	92	141	104	72	7.3	7.5	35
26	52	82	74	95	107	103	132	99	52	8.5	9.2	34
27	49	79	80	80	115	111	135	89	40	75	9.9	32
28	46	56	88	82	109	100	129	68	36	34	11	30
29	50	50	92	82	111	44	126	70	33	23	13	29
30	63	52	73	84	---	95	214	70	29	13	12	27
31	90	---	71	84	---	116	---	65	---	11	14	---
TOTAL	918.9	2105	2323	2711	3171	2869	7015	3975	2115	477.1	271.3	1271
MEAN	29.6	70.2	74.9	87.5	109	92.5	234	128	70.5	15.4	8.75	42.4
MAX	90	88	92	120	168	116	503	260	383	75	16	136
MIN	7.1	49	60	65	80	44	121	65	17	3.0	3.3	18
AC-FT	1820	4180	4610	5380	6290	5690	13910	7880	4200	946	538	2520

CAL YR 1979 TOTAL 21458.0 MEAN 58.8 MAX 312 MIN 6.5 AC-FT 42560
WTR YR 1980 TOTAL 29222.3 MEAN 79.8 MAX 503 MIN 3.0 AC-FT 57960

06827500 SOUTH FORK REPUBLICAN RIVER NEAR BENKELMAN, NE

LOCATION.--Lat 40°00'34", long 101°32'32", in NE1/4SW1/4 sec.31, T.1 N., R.37 W., Dundy County, Hydrologic Unit 10250003, on right bank 100 ft (30 m) upstream from bridge on State Highway 61, 1 mi (2 km) downstream from Kansas-Nebraska State line, 2.5 mi (4.0 km) southwest of Benkelman, and 4 mi (6 km) upstream from mouth.

DRAINAGE AREA.--2,740 mi^2 (7,100 km^2), approximately, of which about 2,190 mi^2 (5,670 km^2) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1894 to September 1895, October 1902 to November 1906, October 1930 to September 1932, August 1937 to current year. Published as South Fork of Republican River at Benkelman prior to 1906 and as Republican River at Benkelman 1931-32. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1904-6, 1931. WSP 1390: 1940, 1945, 1947. WSP 1919: 1951-52, 1954-56. WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,990.91 ft (911.629 m) National Geodetic Vertical Datum of 1929. Prior to Dec. 10, 1947, nonrecording gages at several sites within 3.5 mi (5.6 km) of present site at various datums. Dec. 10, 1947, to Sept. 28, 1966, water-stage recorder 130 ft (40 m) downstream at datum 2.00 ft (0.610 m) higher, and Sept. 29, 1966, to Mar. 7, 1968, at present site at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow affected by irrigation development above station, and since July 6, 1950, by storage in Bonny Reservoir.

AVERAGE DISCHARGE.--50 years, 51.8 ft^3/s (1.467 m^3/s), 37,530 acre-ft/yr (46.3 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge determined, 19,600 ft^3/s (555 m^3/s) Aug. 16, 1958, gage height, 8.70 ft (2.652 m), site and datum then in use, but may have been higher during flood of June 24, 1945; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1923, 10.1 ft (3.08 m) May 31, 1935, from floodmarks at site 0.2 mi (0.3 km) downstream, at datum 2.00 ft (0.610 m) higher, discharge, 150,000 ft^3/s (4,250 m^3/s), by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 770 ft^3/s (21.8 m^3/s) Sept. 1, gage height, 4.8 ft (1.46 m) from high-water mark; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	9.6	18	13	40	36	200	36	10	8.6	360
2	.00	.00	10	20	16	35	46	150	78	4.6	6.4	64
3	.00	.00	10	24	25	38	62	100	97	8.2	2.9	11
4	.00	.00	15	26	36	40	81	84	55	9.9	.20	2.9
5	.00	.32	20	26	42	40	96	75	44	6.1	.00	1.4
6	.00	.56	18	24	40	42	101	76	37	4.1	.00	.20
7	.00	4.6	18	16	36	44	116	78	34	2.7	.00	.00
8	.00	4.1	15	10	30	56	120	78	28	1.8	.00	.00
9	.00	3.8	15	10	30	58	130	73	29	1.0	.00	.10
10	.00	4.4	14	11	40	56	133	71	26	.49	.10	14
11	.00	5.0	14	15	52	54	123	67	23	.21	.86	27
12	.00	5.1	9.5	25	50	53	108	70	17	.10	.00	30
13	.00	9.4	10	40	58	51	96	63	14	.10	.00	22
14	.00	11	10	51	50	52	91	64	13	.05	.00	12
15	.00	9.0	11	50	42	51	85	66	10	.01	.00	8.6
16	.00	7.4	11	45	36	42	77	92	43	.00	13	5.0
17	.00	7.3	3.6	35	40	39	75	106	25	.00	74	4.1
18	.00	8.0	15	25	42	37	70	102	25	.00	60	2.7
19	.00	7.3	12	27	46	36	67	96	24	.00	19	1.4
20	.00	14	12	20	54	34	61	88	65	.00	6.0	.10
21	.00	21	14	12	60	33	61	76	87	.00	2.4	.00
22	.00	16	16	15	61	33	60	72	53	.00	.40	.00
23	.00	4.2	20	18	57	33	55	70	35	.00	.00	.00
24	.00	15	20	20	66	29	56	66	26	.00	.00	.00
25	.00	18	25	25	60	28	55	60	20	.02	.00	.00
26	.00	20	20	18	56	27	55	53	18	.00	.00	.00
27	.00	20	20	15	58	28	49	45	15	.51	.00	.00
28	.00	18	20	13	57	27	50	43	11	16	.00	.00
29	.00	10	18	12	58	22	50	43	34	36	.00	.00
30	.00	9.2	18	12	---	29	72	40	37	27	.00	.00
31	.00	---	15	12	---	34	---	37	---	13	.10	---
TOTAL	.00	252.68	458.7	690	1311	1221	2337	2404	1059	141.89	193.96	566.50
MEAN	.000	8.42	14.8	22.3	45.2	39.4	77.9	77.5	35.3	4.58	6.26	18.9
MAX	.00	21	25	51	66	58	133	200	97	36	74	360
MIN	.00	.00	3.6	10	13	22	36	37	10	.00	.00	.00
AC-FT	.00	501	910	1370	2600	2420	4640	4770	2100	281	385	1120

CAL YR 1979 TOTAL 9218.50 MEAN 25.3 MAX 1130 MIN .00 AC-FT 18280
WTR YR 1980 TOTAL 10635.73 MEAN 29.1 MAX 360 MIN .00 AC-FT 21100

06828490 MUDDY CREEK AT STRATTON, NE 1979

LOCATION.--Lat 40°08'45", long 101°14'19", in NW1/4NE1/4 sec.14, T.2 N., R.35 W., Hitchcock County, Hydrologic Unit 10250004, on left bank 10 ft (3 m) downstream from bridge on U.S. Highway 34 at west edge of Stratton and 1,000 ft (305 m) upstream from mouth.

DRAINAGE AREA.--157 mi² (407 km²), of which about 86 mi² (223 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,782.47 ft (848.097 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor. Natural flow affected by pump irrigation development above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19 ft³/s (0.54 m³/s) Feb. 13, 1979, gage height, 4.00 ft (1.219 m), backwater from Republican River; maximum gage height, 4.93 ft (1.503 m) July 4, 1979, backwater from Republican River; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 19 ft³/s (0.54 m³/s) Feb. 13, gage height, 4.00 ft (1.219 m), backwater from Republican River; maximum gage height, 4.93 ft (1.503 m) July 4, backwater from Republican River; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	1.5	.63	.24	.27	.00	.00	.00
2	.00	.00	.00	.00	.00	1.6	.63	.39	.24	.00	.00	.00
3	.00	.00	.00	.00	.10	2.0	1.3	.90	.21	.08	.00	.00
4	.00	.00	.00	.00	.10	2.5	.45	.82	.03	4.6	.00	.00
5	.00	.00	.00	.00	.50	3.6	.45	.48	.00	4.0	.00	.00
6	.00	.00	.00	.00	.60	3.0	.48	.42	.00	1.8	.00	.00
7	.00	.00	.00	.00	1.0	2.8	.27	.39	.00	.30	.00	.00
8	.00	.00	.00	.00	1.0	2.3	.24	.39	.00	.00	.00	.00
9	.00	.00	.00	.00	1.5	2.0	.27	.57	.02	.00	.00	.00
10	.00	.00	.00	.00	2.0	1.5	.06	.90	.00	.00	.00	.00
11	.00	.00	.00	.00	6.0	1.2	1.2	.72	.00	.00	.00	.00
12	.00	.00	.00	.00	12	1.0	1.5	.57	.00	.00	.00	.00
13	.00	.00	.00	.00	11	.42	1.0	.48	.00	.00	.00	.00
14	.00	.00	.00	.00	16	.39	.45	.39	.00	.00	.00	.00
15	.00	.00	.00	.00	11	.15	.21	.48	.00	.00	.00	.00
16	.00	.00	.00	.00	10	.30	.12	.45	.00	.00	.00	.00
17	.00	.00	.00	.00	8.2	.12	.06	.39	.00	.00	.00	.00
18	.00	.00	.00	.00	6.8	.48	.12	.72	.00	.00	.00	.00
19	.00	.00	.00	.00	5.3	.45	.15	.45	.00	1.2	.00	.00
20	.00	.00	.00	.00	5.0	.30	.21	.36	.00	.39	.00	.00
21	.00	.00	.00	.00	6.2	.82	.15	.36	.00	.00	.00	.00
22	.00	.00	.00	.00	5.2	3.8	.12	.21	.00	.00	.00	.00
23	.00	.00	.00	.00	4.3	3.5	.33	.21	.00	.00	.00	.00
24	.00	.00	.00	.00	3.4	2.3	.24	.15	.00	.00	.00	.00
25	.00	.00	.00	.00	2.7	.90	.39	.15	.24	.00	.00	.00
26	.00	.00	.00	.00	2.0	1.5	.54	.06	3.6	.00	.00	.00
27	.00	.00	.00	.00	1.8	.90	.45	.00	.48	.00	.00	.00
28	.00	.08	.00	.00	1.6	.42	.42	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.45	.36	.00	3.5	.00	.00	.00
30	.00	.00	.00	.00	---	.30	.15	.00	.24	.00	.00	.00
31	.00	---	.00	.00	---	.36	---	.06	---	.00	.00	---
TOTAL	.00	.08	.00	.00	125.30	42.86	12.95	11.71	8.83	12.37	.00	.00
MEAN	.000	.003	.000	.000	4.48	1.38	.43	.38	.29	.40	.000	.000
MAX	.00	.08	.00	.00	16	3.8	1.5	.90	3.6	4.6	.00	.00
MIN	.00	.00	.00	.00	.00	.12	.06	.00	.00	.00	.00	.00
AC-FT	.00	.2	.00	.00	249	85	26	23	18	25	.00	.00

CAL YR 1978 TOTAL 202.15 MEAN .55 MAX 2.7 MIN .00 AC-FT 401
WTR YR 1979 TOTAL 214.10 MEAN .59 MAX 16 MIN .00 AC-FT 425

06828490 MUDDY CREEK AT STRATTON, NE 1980

LOCATION.--Lat 40°08'45", long 101°14'19", in NW1/4NE1/4 sec.14, T.2 N., R.35 W., Hitchcock County, Hydrologic Unit 10250004, on left bank 10 ft (3 m) downstream from bridge on U.S. Highway 34 at west edge of Stratton and 1,000 ft (305 m) upstream from mouth.

DRAINAGE AREA.--157 mi^2 (407 km^2), of which about 86 mi^2 (223 km^2) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1977 to September 1980, discontinued.

GAGE.--Water-stage recorder. Datum of gage is 2,782.47 ft (848.097 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor. Natural flow affected by pump irrigation development above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19 ft^3/s (0.54 m^3/s) Feb. 13, 1979; maximum gage height, 4.93 ft (1.503 m) July 4, 1979, backwater from Republican River; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 16 ft^3/s (0.45 m^3/s) June 30, gage height, 3.25 ft (0.991 m); maximum gage height, 4.08 ft (1.244 m) Feb. 21, backwater from ice; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.15	.05	1.8	1.6	2.6	.00	.02	.00	.00
2	.00	.00	.00	.20	.08	2.0	2.3	2.3	3.9	.00	.00	.00
3	.00	.00	.03	.30	.10	1.5	2.6	1.7	2.3	.03	.00	.00
4	.00	.00	.15	.30	.10	1.5	3.2	1.4	.65	.00	.00	.00
5	.00	.00	.20	.25	.15	1.6	3.6	1.1	.12	.00	.00	.00
6	.00	.00	.15	.20	.20	1.1	3.9	.95	.08	.00	.00	.00
7	.00	.00	.10	.15	.30	1.1	4.1	.95	.06	.00	.00	.00
8	.00	.00	.05	.05	.20	1.2	3.3	.83	.05	.00	.00	.00
9	.00	.00	.00	.05	.10	1.0	3.4	.71	.06	.00	.00	.00
10	.00	.00	.00	.10	.10	1.0	3.4	.48	.14	.00	.00	.00
11	.00	.00	.00	.20	.40	.94	3.1	.40	.06	.00	.00	.00
12	.00	.00	.00	.25	.40	.72	2.5	.20	.07	.00	.00	.00
13	.00	.00	.00	.35	.40	.66	2.4	.17	.06	.00	.00	.00
14	.00	.00	.00	.40	.40	.49	2.2	.17	.05	.00	.00	.00
15	.00	.00	.03	.40	.40	.45	2.2	.08	.03	.00	.00	.00
16	.00	.00	.08	.50	.20	.40	1.9	1.2	.08	.00	.00	.00
17	.00	.00	.00	.50	.10	.45	1.7	1.9	.12	.00	.00	.00
18	.00	.00	.02	.50	.30	.45	1.6	2.2	.11	.00	.00	.00
19	.00	.00	.02	.45	.40	.49	1.4	1.8	.17	.00	.00	.00
20	.00	.00	.05	.35	3.0	.26	1.0	1.3	.18	.00	.00	.00
21	.00	.00	.05	.20	5.0	.23	.72	.83	3.7	.00	.00	.00
22	.00	.00	.05	.25	5.2	.26	.80	.71	1.7	.00	.00	.00
23	.00	.00	.02	.30	4.5	.18	.66	.56	.31	.00	.00	.00
24	.00	.00	.00	.30	3.8	.14	.49	.48	.09	.00	.00	.00
25	.00	.05	.00	.35	2.3	.14	.45	.22	.06	.00	.00	.00
26	.00	.25	.00	.20	1.8	.22	.29	.09	.04	.00	.00	.00
27	.00	.30	.00	.10	1.7	.26	.32	.14	.02	.00	.00	.00
28	.00	.05	.00	.05	1.6	1.5	.27	.21	.00	.00	.00	.00
29	.00	.00	.00	.05	1.2	1.9	.35	.06	.00	.00	.00	.00
30	.00	.00	.15	.05	---	.36	.65	.00	5.3	.00	.00	.00
31	.00	---	.15	.05	---	.13	---	.00	---	.00	.00	---
TOTAL	.00	.65	1.30	7.55	34.48	24.43	56.40	25.74	19.51	.05	.00	.00
MEAN	.000	.022	.042	.24	1.19	.79	1.88	.83	.65	.002	.000	.000
MAX	.00	.30	.20	.50	5.2	2.0	4.1	2.6	5.3	.03	.00	.00
MIN	.00	.00	.00	.05	.05	.13	.27	.00	.00	.00	.00	.00
AC-FT	.00	1.3	2.6	15	68	48	112	51	39	.10	.00	.00

CAL YR 1979 TOTAL 215.97 MEAN .59 MAX 16 MIN .00 AC-FT 428
WTR YR 1980 TOTAL 170.11 MEAN .46 MAX 5.3 MIN .00 AC-FT 337

06828500 REPUBLICAN RIVER AT STRATTON, NE

LOCATION.--Lat 40°08'28", long 101°13'42", in SW1/4NW1/4 sec.13, T.2 N., R.35 W., Hitchcock County, Hydrologic Unit 10250004, on right bank at downstream side of county bridge, 0.5 mi (0.8 km) south of Stratton, 0.2 mi (0.3 km) downstream from Muddy Creek, 10 mi (16 km) upstream from Trenton Dam, and 19 mi (31 km) downstream from South Fork Republican River.

DRAINAGE AREA.--8,450 mi^2 (21,900 km^2), approximately, of which about 3,800 mi^2 (9,840 km^2) contributes directly to surface runoff.

PERIOD OF RECORD.--July 1950 to current year.

REVISED RECORDS.--WSP 2119: Drainage area. WDR NE-73: 1968-71(M), 1972.

GAGE.--Water-stage recorder. Datum of gage is 2,775.49 ft (845.969 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 1, 1967, at site 0.3 mi (0.5 km) downstream at present datum.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow affected by irrigation development above station and by storage in Bonny Reservoir (station 06826000).

AVERAGE DISCHARGE.--30 years, 131 ft^3/s (3.710 m^3/s), 94,910 acre-ft/yr (0.117 km^3/yr); median of yearly mean discharges, 116 ft^3/s (3.285 m^3/s), 84,000 acre-ft/yr (0.104 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,800 ft^3/s (759 m^3/s) July 31, 1962, gage height, 9.34 ft (2.847 m), site then in use; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood since at least 1826 occurred May 31, 1935, discharge, about 200,000 ft^3/s (5,660 m^3/s), based on slope-area measurement at Max.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 855 ft^3/s (24.2 m^3/s) Apr. 7, gage height, 7.36 ft (2.243 m); maximum gage height, 7.71 ft (2.350 m) Feb. 21, backwater from ice; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	88	78	84	100	135	195	487	94	110	18	.00
2	.00	86	82	110	106	130	219	407	123	30	4.4	95
3	.00	77	86	110	110	140	275	307	134	30	1.6	66
4	.00	72	90	114	116	150	382	257	123	32	.62	29
5	.00	70	96	114	130	155	554	246	86	17	.28	15
6	.00	65	90	110	125	162	638	224	67	12	.12	9.0
7	.00	65	90	100	125	162	755	214	58	5.6	.00	3.3
8	.00	72	88	94	115	185	706	219	42	2.9	.00	.91
9	.00	72	86	94	100	190	638	209	33	1.1	.00	8.4
10	.00	75	86	98	105	185	695	195	32	.40	.00	14
11	.00	70	83	110	118	180	695	176	32	.08	.00	13
12	.00	66	77	120	105	180	574	162	27	.00	.00	13
13	.00	70	75	130	110	176	534	149	21	.00	.00	13
14	.00	72	83	140	100	171	506	145	15	.00	.00	14
15	.00	76	64	160	90	158	451	145	11	.00	.00	13
16	.00	80	50	175	85	149	399	185	13	.00	.00	14
17	.00	80	23	180	90	149	366	281	56	.00	.00	14
18	.00	72	40	180	110	141	343	343	33	.00	2.5	15
19	1.6	74	70	170	140	145	314	314	28	.00	32	14
20	5.6	75	110	160	170	149	287	269	39	.00	.62	14
21	9.0	86	104	135	170	149	257	224	235	.00	.00	14
22	32	95	100	140	175	149	240	199	176	.00	.00	13
23	39	85	96	140	175	149	229	171	97	.00	.00	11
24	39	88	90	145	180	149	219	153	72	.00	.00	10
25	37	90	90	150	190	153	209	141	54	.00	.00	10
26	37	85	90	120	195	153	204	138	35	.00	.00	10
27	35	82	100	110	180	158	195	134	18	.00	.00	8.4
28	35	80	106	96	167	140	185	127	8.0	42	.00	7.7
29	39	72	110	98	149	115	176	107	5.0	176	.00	7.7
30	48	74	90	98	---	140	195	94	294	138	.00	7.0
31	88	---	88	100	---	190	---	94	---	70	.00	---
TOTAL	445.20	2314	2611	3885	3831	4837	11635	6516	2061.0	667.08	60.14	476.41
MEAN	14.4	77.1	84.2	125	132	156	388	210	68.7	21.5	1.94	15.9
MAX	88	95	110	180	195	190	755	487	294	176	32	95
MIN	.00	65	23	84	85	115	176	94	5.0	.00	.00	.00
AC-FT	883	4590	5180	7710	7600	9590	23080	12920	4090	1320	119	945

CAL YR 1979 TOTAL 29844.11 MEAN 81.8 MAX 3310 MIN .00 AC-FT 59200

WTR YR 1980 TOTAL 39338.83 MEAN 107 MAX 755 MIN .00 AC-FT 78030

06829000 SWANSON LAKE NEAR TRENTON, NE

LOCATION.--Lat 40°10'10", long 101°03'35", in SE1/4NE1/4 sec.5, T.2 N., R.33 W., Hitchcock County, Hydrologic Unit 10250004, in gate-control house at right end of spillway on downstream side of Trenton Dam on Republican River, 2.5 mi (4.0 km) west of Trenton.

DRAINAGE AREA.--8,620 mi² (22,300 km²), approximately, of which about 3,940 mi² (10,200 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--May 1953 to current year.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Nov. 13, 1953, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by earthfill dam; storage began May 4, 1953. Capacity, 116,100 acre-ft (0.143 km³) between elevations 2,710.0 ft (826 m), sill of outlet gates, and 2,752.0 ft (839 m), top of storage pool. Top of flood-control pool is at elevation 2,773.0 ft (845 m), capacity, 254,000 acre-ft (0.313 km³). Top of superstorage flood-control pool at elevation 2,785.0 ft (849 m), capacity, 361,600 acre-ft (0.446 km³). Dead storage, 4,100 acre-ft (5.06 hm³). Figures given herein represent total contents. Water used for irrigation in Frenchman-Cambridge irrigation project.

COOPERATION.--Capacity table furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 148,900 acre-ft (0.184 km³) Aug. 2, 3, 1962, elevation, 2,757.42 ft (840.462 m); minimum since operation of reservoir began, 19,950 acre-ft (24.6 hm³) Oct. 24, 1954, elevation, 2,722.61 ft (829.852 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 96,580 acre-ft (0.119 km³) June 23, elevation, 2,746.98 ft (837.280 m); minimum contents, 35,150 acre-ft (43.3 hm³) Oct. 21, elevation, 2,729.64 ft (831.994 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

2,725	24,600	2,740	67,730
2,730	36,050	2,745	87,930
2,735	50,280	2,750	110,500

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35850	35780	38660	43100	48530	58240	68150	85090	94010	94580	68070	55600
2	35750	35830	38710	43210	48650	58480	68760	85630	94450	93970	67240	55260
3	35750	35880	38820	43330	48840	58830	69260	86060	94720	93660	66300	55060
4	35700	35900	38920	43560	49060	59360	69800	86610	94890	93090	65480	54890
5	35600	36000	39170	43760	49340	59680	70690	86950	94940	92340	64730	54720
6	35580	36050	39430	43960	49620	59960	71700	87330	95030	91640	63990	54560
7	35550	36180	39620	44050	50090	60270	72910	87550	95120	90820	63370	54390
8	35430	36300	39840	44100	50310	60630	73780	87930	95120	89990	62570	54220
9	35430	36330	40000	44160	50600	61060	74690	88230	95120	89010	61850	54090
10	35430	36460	40220	44280	50830	61350	75560	88400	95160	88020	61100	54050
11	35380	36510	40300	44280	51020	61600	76400	88750	95200	86910	60880	53950
12	35330	36580	40440	44370	51250	61990	77170	89050	95120	85890	60850	53850
13	35300	36690	40520	44540	51570	62280	77900	89180	95120	84960	60810	53790
14	35280	36760	40570	44810	51960	62530	78460	89310	95120	83780	60740	53790
15	35280	36840	40710	45070	52250	62860	78910	89520	95030	82700	60740	53750
16	35280	36910	40740	45310	52540	63120	79480	90250	95200	81740	60630	53690
17	35250	37020	40820	45690	52740	63330	79890	90820	95470	80750	60520	53650
18	35250	37090	40850	46020	52930	63630	80340	91340	95520	79770	60380	53590
19	35250	37220	41040	46320	53320	63770	80750	91730	95740	78870	60170	53590
20	35200	37500	41180	46480	53890	63990	81130	92120	95780	77900	59990	53590
21	35280	37770	41370	46630	54560	64180	81580	92290	96090	77130	59820	53550
22	35280	37870	41590	46870	55220	64440	81830	92650	96400	76440	59610	53450
23	35280	37980	41760	47140	55800	64700	81990	92780	96540	75560	59390	53420
24	35280	38030	41930	47450	56280	64920	82290	93090	96540	75120	59150	53360
25	35280	38240	42100	47760	56620	65110	82490	93260	96490	74130	58830	53360
26	35280	38390	42210	47880	57060	65370	82830	93440	96180	73150	58450	53320
27	35280	38550	42410	47910	57440	65810	83240	93610	95600	72400	57960	53290
28	35280	38660	42720	47970	57760	66640	83620	93700	95160	71850	57510	53230
29	35280	38630	42890	48000	58070	67050	83990	94010	94720	71420	56990	53160
30	35480	38630	43010	48220	---	67200	84410	94010	95030	69990	56410	53160
31	35780	---	43070	48340	---	67470	---	94010	---	68840	55940	---
MAX	35850	38660	43070	48340	58070	67470	84410	94010	96540	94580	68070	55600
MIN	35200	35780	38660	43100	48530	58240	68150	85090	94010	68840	55940	53160
†	2729.89	2731.00	2732.61	2734.38	2737.34	2739.93	2744.17	2746.40	2746.63	2740.29	2736.72	2735.89
‡	-170	+2850	+4440	+5270	+9730	+9400	+16940	+9600	+1020	-26190	-12900	-2780

CAL YR 1979 MAX 62060 MIN 29140 +13960
WTR YR 1980 MAX 96540 MIN 35200 +17210

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

KANSAS RIVER BASIN

06829500 REPUBLICAN RIVER AT TRENTON, NE 1979

LOCATION.--Lat 40°10'00", long 101°02'40", in SE1/4 sec.4, T.2 N., R.33 W., Hitchcock County, Hydrologic Unit 10250004, on left bank 300 ft (91 m) upstream from Elm Creek, 0.9 mi (1.4 km) downstream from centerline of spillway of Trenton Dam, and 1.5 mi (2.4 km) southwest of Trenton.

DRAINAGE AREA.--8,620 mi² (22,300 km²), approximately, of which about 3,940 mi² (10,200 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1946 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,671.06 ft (814.139 m) National Geodetic Vertical Datum of 1929. See WSP 2119 for history of changes prior to Oct. 1, 1959.

REMARKS.--Records good. Natural flow affected by irrigation development above station, since July 6, 1950, by storage in Bonny Reservoir (station 06826000), since 1953 by storage in Swanson Lake (station 06829000), and since June 1957 by Meeker-Driftwood Canal which diverts directly from Swanson Lake for irrigation of about 16,400 acres (66.4 km²).

AVERAGE DISCHARGE.--34 years, 86.7 ft³/s (2.455 m³/s), 62,810 acre-ft/yr (77.4 hm³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,800 ft³/s (476 m³/s) June 16, 1948, gage height, 5.64 ft (1.719 m), former site and datum; no flow at times in 1947-50, 1952-54.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood known since about 1826 occurred May 31, 1935, discharge, about 200,000 ft³/s (5,660 m³/s). Discharge of 21,100 ft³/s (598 m³/s) was measured July 3, 1946, gage height, 6.0 ft (1.83 m), former site and datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 154 ft³/s (4.36 m³/s) June 26, gage height, 4.67 ft (1.423 m); minimum daily, 0.30 ft³/s (0.008 m³/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.30	.77	.67	.67	.62	.67	.86	2.2	.87	125	99	.72
2	.38	.76	.67	.67	.61	.67	.90	2.0	.94	126	98	.56
3	.38	.68	.69	.67	.60	.67	.90	1.9	.94	98	94	.58
4	.44	.67	.70	.67	.62	.67	.87	1.9	1.0	104	88	.54
5	.45	.67	.68	.67	.59	.67	.88	1.9	1.0	124	86	.55
6	.41	.67	.67	.60	.65	.67	.90	1.6	.90	123	84	.56
7	.45	.70	.67	.60	.68	.67	.90	1.6	.98	124	84	.56
8	.45	.67	.67	.45	.61	.69	1.0	1.5	.97	123	83	.57
9	.46	.67	.69	.45	.58	.67	1.0	1.4	.95	122	79	.76
10	.49	.69	.69	.50	.60	.61	1.0	1.3	1.0	121	79	.59
11	.54	.68	.67	.50	.75	.53	.97	1.1	1.0	119	46	.58
12	.47	.61	.67	.60	.62	.54	.93	1.1	1.0	118	9.7	.58
13	.48	.63	.67	.60	.68	.53	.94	1.1	.98	118	6.0	.59
14	.53	.59	.67	.44	.68	.55	.93	.94	.98	118	3.2	.63
15	.57	.63	.67	.60	.68	.56	.94	.92	1.0	118	1.6	.66
16	.64	.59	.64	.61	.68	.53	.95	.90	1.0	117	1.3	.69
17	.65	.62	.67	.60	.68	.53	.97	.82	1.0	116	1.2	.79
18	.60	.60	.67	.60	.68	.55	.95	.77	1.0	114	.82	.79
19	.63	.60	.65	.53	.65	.57	.90	.71	1.0	113	.76	.80
20	.63	.60	.67	.53	.70	.60	.88	.76	1.0	111	.70	.76
21	.60	.60	.68	.53	.70	.57	.90	.78	1.0	108	.58	.76
22	.64	.62	.67	.60	.70	.60	.91	.85	1.0	106	.64	.76
23	.57	.63	.67	.62	.74	.60	1.4	.85	1.0	105	.64	.76
24	.60	.65	.67	.64	.74	.60	2.0	.78	1.1	105	.58	.82
25	.60	.67	.67	.53	.74	.54	2.0	.86	1.0	103	.64	.89
26	.61	.63	.67	.54	.73	.56	2.1	.86	42	102	.64	.86
27	.63	.67	.67	.53	.72	.60	2.2	.91	151	101	.63	.81
28	.56	.65	.67	.56	.72	.60	2.3	.92	133	102	.61	.79
29	.60	.67	.67	.56	.67	.70	2.4	.92	123	102	.56	.77
30	.67	.67	.67	.54	---	.75	2.3	.98	125	101	.52	.76
31	.72	---	.67	.60	---	.77	---	.87	---	100	.62	---
TOTAL	16.75	19.56	20.83	17.81	19.42	19.04	37.08	36.00	598.61	3487	951.94	20.84
MEAN	.54	.65	.67	.57	.67	.61	1.24	1.16	20.0	112	30.7	.69
MAX	.72	.77	.70	.67	.75	.77	2.4	2.2	151	126	99	.89
MIN	.30	.59	.64	.44	.58	.53	.86	.71	.87	98	.52	.54
AC-FT	33	39	41	35	39	38	74	71	1190	6920	1890	41

CAL YR 1979 TOTAL 3097.88 MEAN 8.49 MAX 171 MIN .28 AC-FT 6140
WTR YR 1980 TOTAL 5244.88 MEAN 14.3 MAX 151 MIN .30 AC-FT 10400

06829500 REPUBLICAN RIVER AT TRENTON, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967-80.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPERATURE, WATER (DEG C) (00010)	TURBIDITY (JTU) (00070)	OXYGEN, DISSOLVED (MG/L) (00300)
OCT							
29...	1415	1.0	670	8.3	11.5	3	16.2
NOV							
26...	1445	1.0	590	8.2	7.0	3	18.5
DEC							
20...	1000	1.0	700	8.1	2.0	2	12.1
JAN							
21...	0915	1.0	765	7.6	1.5	3	10.7
AUG							
15...	1130	2.0	620	7.4	20.0	5	5.0
SEP							
30...	1000	.80	695	7.8	17.0	3	12.0

DATE	TIME	COLOR (PLATINUM COBALT UNITS) (00080)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)
JAN											
21..	0915	5	260	0	66	23	64	1.7	16	270	120
AUG											
15...	1130	5	210	0	49	21	46	1.4	14	220	92

DATE	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
JAN											
21...	17	1.3	39	516	.70	1.39	1.6	.000	210	10	50
AUG											
15...	13	1.2	27	396	.54	2.14	.00	.040	220	20	300

06831500 FRENCHMAN CREEK NEAR IMPERIAL, NE

LOCATION.--Lat 40°25'45", long 101°37'25", in SW1/4NW1/4 sec.3, T.5 N., R.38 W., Chase County, Hydrologic Unit 10250005, on right bank 0.2 mi (0.3 km) downstream from bridge on county highway, 5.8 mi (9.3 km) upstream from Enders Dam, and 6.1 mi (9.8 km) south of Imperial.

DRAINAGE AREA.--880 mi^2 (2,280 km^2), approximately, of which about 720 mi^2 (1,860 km^2) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1940 to current year. Published as Frenchman River near Imperial October 1965 to September 1972.

REVISED RECORDS.--WSP 976: 1942(M). WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Prior to Mar. 7, 1941, nonrecording gage at bridge 0.2 mi (0.3 km) upstream at different datum. Mar. 7, 1941, to Sept. 30, 1958, water-stage recorder at site 0.2 mi (0.3 km) downstream at datum 4.35 ft (1.326 m) lower.

REMARKS.--Records good except those for winter period or no gage height record, which are fair. Natural flow affected by irrigation development above station.

AVERAGE DISCHARGE.--40 years, 64.8 ft^3/s (1.835 m^3/s), 46,950 acre-ft/yr (57.9 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,340 ft^3/s (66.3 m^3/s) Mar. 22, 1960, gage height, 8.43 ft (2.569 m); minimum daily, 4.8 ft^3/s (0.14 m^3/s) Mar. 12, 1977, backwater from ice.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 7, 1940, reached a stage of 12.4 ft (3.78 m), from floodmarks, site and datum in use Mar. 7, 1941, to Sept. 30, 1958 (discharge not determined but believed greater than that of Mar. 22, 1960).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 71 ft^3/s (2.01 m^3/s) Apr. 6, gage height, 1.62 ft (0.494 m), no peak above base of 150 ft^3/s (4.25 m^3/s); maximum gage height, 1.99 ft (0.607 m) Jan. 30, backwater from ice; minimum daily discharge, 13 ft^3/s (0.37 m^3/s) Mar. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	28	31	32	32	28	50	38	30	29	23	27
2	21	27	29	32	33	31	62	37	28	29	22	26
3	21	26	31	33	32	34	57	36	28	35	22	24
4	21	26	33	33	32	32	52	36	27	30	22	24
5	22	26	35	31	33	31	55	35	27	30	22	24
6	22	26	35	28	32	31	66	35	27	29	22	24
7	22	26	35	27	33	32	57	36	27	28	22	23
8	23	26	37	28	33	32	45	35	27	27	21	24
9	23	26	37	30	30	32	52	34	27	25	21	27
10	24	26	37	33	33	30	48	34	27	26	20	26
11	23	26	36	31	32	31	48	33	28	24	20	26
12	23	25	35	31	30	30	46	33	30	20	21	25
13	24	25	35	31	28	29	45	34	28	21	21	24
14	24	24	34	32	26	29	45	33	28	22	24	25
15	24	25	35	31	26	28	39	31	33	24	25	24
16	24	25	31	31	27	29	35	32	40	24	28	23
17	25	25	35	32	30	29	34	31	43	23	30	24
18	25	25	34	30	32	29	34	29	35	23	28	24
19	25	25	34	29	34	29	33	28	37	23	27	24
20	25	25	35	32	36	30	33	28	35	24	25	24
21	27	24	34	31	38	28	34	28	32	29	24	24
22	30	21	34	31	40	28	34	27	30	28	24	24
23	28	26	35	31	36	29	33	27	29	26	24	23
24	27	32	35	32	34	29	33	27	28	28	24	24
25	26	34	36	32	33	29	34	27	28	26	24	24
26	26	34	36	29	31	30	34	27	28	26	27	24
27	26	33	34	29	31	30	32	27	28	27	27	24
28	26	37	32	28	31	28	32	27	27	25	26	24
29	26	32	33	29	30	13	35	26	28	23	27	24
30	27	34	32	35	---	31	37	26	29	22	25	24
31	31	---	32	50	---	49	---	29	---	23	26	---
TOTAL	762	820	1057	974	928	930	1274	966	899	799	744	731
MEAN	24.6	27.3	34.1	31.4	32.0	30.0	42.5	31.2	30.0	25.8	24.0	24.4
MAX	31	37	37	50	40	49	66	38	43	35	30	27
MIN	21	21	29	27	26	13	32	26	27	20	20	23
AC-FT	1510	1630	2100	1930	1840	1840	2530	1920	1780	1580	1480	1450

CAL YR 1979 TOTAL 10779 MEAN 29.5 MAX 54 MIN 20 AC-FT 21380
WTR YR 1980 TOTAL 10884 MEAN 29.7 MAX 66 MIN 13 AC-FT 21590

06832000 ENDERS RESERVOIR NEAR ENDERS, NE

LOCATION.--Lat 40°25'05", long 101°30'55", in NE1/4 sec.9, T.5 N., R.37 W., Chase County, Hydrologic Unit 10250005, near right bank in control house at outlet tube of Enders Dam on Frenchman Creek, 2.2 mi (3.5 km) southeast of Enders.

DRAINAGE AREA.--950 mi² (2,460 km²), approximately, of which about 790 mi² (2,050 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1950 to current year.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Sept. 3, 1960, mercury-column pressure gage at same datum.

REMARKS.--Reservoir is formed by earthfill dam; storage began Oct. 23, 1950. Capacity, 36,010 acre-ft (44.4 hm³) between elevations 3,080.0 ft (939 m), sill of outlet gates, and 3,112.3 ft (949 m), top of storage pool. Top of flood-control pool at elevation 3,127.0 ft (953 m), capacity, 74,520 acre-ft (91.9 hm³). Top of superstorage flood-control pool at elevation 3,129.5 ft (954 m), capacity, 80,730 acre-ft (99.5 hm³). Dead storage, 8,470 acre-ft (10.4 hm³). Figures given herein represent total contents. Water used for irrigation in Frenchman-Cambridge irrigation project.

COOPERATION.--Capacity table furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 55,330 acre-ft (68.2 hm³) Mar. 25, 1960, elevation, 3,118.20 ft (950.427 m); minimum since operation of reservoir began, 8,870 acre-ft (10.9 hm³) Aug. 28, 1978, elevation, 3,080.67 ft (938.988 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 30,940 acre-ft (38.1 hm³) June 24, 25, elevation, 3,103.40 ft (945.916 m); minimum, 9,800 ft³/s (278 m³/s) Aug. 17, elevation, 3,082.14 ft (939.436 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

3,080	8,470	3,100	26,540
3,085	11,770	3,110	40,660
3,090	15,830		

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13830	15780	17920	20280	22270	24260	26380	28850	30280	29790	16220	11070
2	13900	15820	18030	20350	22340	24320	26550	28910	30290	29500	15650	11150
3	13940	15910	18100	20410	22420	24410	26680	28950	30330	29200	15200	11230
4	13980	16000	18220	20490	22490	24440	26790	29000	30350	28850	14790	11290
5	14020	16050	18280	20560	22550	24520	26930	29040	30390	28470	14290	11370
6	14080	16120	18370	20580	22600	24590	27090	29200	30400	28070	13810	11430
7	14150	16210	18430	20610	22710	24660	27180	29200	30400	27650	13390	11480
8	14190	16270	18530	20650	22790	24720	27260	29210	30400	27140	12930	11710
9	14230	16320	18610	20730	22860	24810	27350	29260	30410	26680	12480	11810
10	14290	16390	18720	20830	22930	24850	27460	29300	30450	25880	11950	11910
11	14350	16450	18760	20860	22980	24900	27560	29300	30510	25400	11190	12000
12	14400	16520	18850	20960	23080	24970	27640	29340	30550	24580	10680	12040
13	14450	16570	18900	21000	23130	25020	27760	29360	30590	24090	10180	12100
14	14540	16630	19020	21080	23180	25060	27880	29410	30560	23590	9920	12180
15	14600	16690	19060	21140	23240	25140	28030	29460	30560	23110	9830	12260
16	14640	16790	19110	21200	23280	25140	28080	29610	30570	22620	9810	12280
17	14690	16840	19200	21280	23390	25200	28120	29670	30630	22130	9840	12370
18	14770	16890	19280	21340	23460	25270	28250	29740	30680	21680	9920	12420
19	14850	16960	19340	21430	23540	25310	28310	29810	30780	21200	10030	12480
20	14910	17080	19420	21490	23620	25360	28400	29870	30780	20780	10080	12540
21	15030	17210	19490	21570	23710	25400	28490	29900	30870	20550	10170	12610
22	15100	17240	19570	21650	23770	25430	28530	29940	30880	20120	10240	12640
23	15180	17340	19630	21720	23840	25460	28530	29960	30920	19710	10310	12710
24	15260	17410	19710	21760	23920	25510	28560	30000	30940	19310	10390	12790
25	15320	17500	19790	21820	23970	25550	28570	30060	30920	18910	10490	12840
26	15410	17580	19860	21870	24040	25620	28580	30070	30840	18520	10570	12890
27	15440	17650	19930	21930	24130	25790	28590	30080	30640	18190	10660	12960
28	15500	17740	20020	22010	24160	26010	28660	30120	30400	17810	10740	13030
29	15560	17750	20100	22080	24200	26060	28730	30230	30100	17420	10830	13080
30	15650	17840	20150	22100	---	26120	28800	30240	29910	17000	10890	13140
31	15710	---	20210	22180	---	26220	---	30250	---	16610	11000	---
MAX	15710	17840	20210	22180	24200	26220	28800	30250	30940	29790	16220	13140
MIN	13830	15780	17920	20280	22270	24260	26380	28850	29910	16610	9810	11070
†	3089.86	3092.14	3094.49	3096.30	3098.07	3099.74	3101.78	3102.89	3102.63	3090.85	3083.92	3086.80
‡	+1900	+2130	+2370	+1970	+2020	+2020	+2580	+1450	-340	-13300	-5610	+2140

CAL YR 1979 MAX 28380 MIN 11550 +2410
WTR YR 1980 MAX 30940 MIN 9810 -670

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

06832500 FRENCHMAN CREEK NEAR ENDERS, NE

LOCATION.--Lat 40°25'05", long 101°30'35", in NW1/4NW1/4 sec.10, T.5 N., R.37 W., Chase County, Hydrologic Unit 10250005, on left bank 0.2 mi (0.3 km) downstream from Enders Dam and 2.5 mi (4.0 km) southeast of Enders.

DRAINAGE AREA.--950 mi^2 (2,460 km^2), approximately, of which about 790 mi^2 (2,050 km^2) contributes directly to surface runoff.

PERIOD OF RECORD.--February 1946 to current year. Published as Frenchman River near Enders October 1965 to September 1972.

REVISED RECORDS.--WSP 2119: 1956, drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,026.22 ft (922.392 m) National Geodetic Vertical Datum of 1929. Prior to June 14, 1948, at site 800 ft (240 m) upstream at datum 6.03 ft (1.838 m) higher. June 14, 1948, to Sept. 14, 1972, at present site at datum 5.00 ft (1.524 m) higher.

REMARKS.--Records good except those below 5.0 ft^3/s (0.14 m^3/s), which are poor. Flow regulated by Enders Reservoir (station 06832000).

AVERAGE DISCHARGE.--34 years, 63.6 ft^3/s (1.801 m^3/s), 46,080 acre-ft/yr (56.8 hm^3/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 763 ft^3/s (21.6 m^3/s) Aug. 20, 1953, gage height, 11.31 ft (3.447 m), present datum; maximum gage height, 11.65 ft (3.551 m), present datum, July 18, 1958, backwater from downstream tributary; no flow for many days in 1972-80.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 326 ft^3/s (9.23 m^3/s) Aug. 9, gage height, 3.26 ft (0.994 m); maximum gage height, 8.32 ft (2.536 m), July 10, 11, shifting control adjustment; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.90	.38	.00	.00	.00	.00	4.6	1.5	1.6	174	238	4.3
2	1.0	1.5	.00	.00	.00	.00	2.1	1.3	2.9	183	251	4.4
3	.98	.00	.00	.00	.00	.00	.17	1.0	1.0	188	258	2.2
4	.84	.00	.00	.00	.00	.00	.06	1.0	1.2	191	259	.00
5	.70	.00	.00	.00	.00	.00	1.2	.78	1.1	205	273	.00
6	.98	.00	.00	.00	.00	.00	.68	.55	.68	218	274	.00
7	.98	.00	.00	.00	.00	.00	.28	.55	.74	229	251	.00
8	.98	.00	.00	.00	.00	.00	.24	.65	.92	247	244	.27
9	.14	.00	.00	.00	.00	.00	.15	.55	1.2	264	272	.03
10	.00	.00	.00	.00	.00	.00	.00	.44	1.4	290	308	.00
11	.00	.00	.00	.00	.00	.00	.00	.35	1.5	301	304	.00
12	.00	.00	.00	.00	.00	.00	.00	1.7	1.7	276	307	.00
13	.00	.00	.00	.00	.00	.00	.00	2.7	26	267	299	.00
14	.00	.00	.00	.00	.00	.00	.00	.84	40	267	215	.00
15	.00	.00	.00	.00	.00	.00	.00	.76	38	272	120	.00
16	.00	.00	.00	.00	.00	.00	.00	1.7	19	284	70	.00
17	.00	.00	.00	.00	.00	.00	.00	1.3	6.7	271	40	.00
18	.00	.00	.00	.00	.00	.00	.00	.99	6.0	257	5.4	.00
19	.00	.00	.00	.00	.00	.00	.00	.76	5.7	268	5.4	.00
20	.00	.00	.00	.00	.00	.00	.00	.65	5.6	265	5.0	.00
21	.01	.00	.00	.00	.00	.00	.69	.65	5.7	256	4.8	.00
22	.00	.00	.00	.00	.00	.00	5.1	.72	5.7	251	4.6	.00
23	.00	.00	.00	.00	.00	.00	4.1	.96	5.6	248	4.6	.00
24	.00	.00	.00	.00	.00	.00	2.1	1.2	22	240	4.6	.01
25	.00	.00	.00	.00	.00	.00	2.3	2.2	36	233	4.8	.01
26	.00	.00	.00	.00	.00	.00	1.5	1.4	37	229	4.7	.00
27	.00	.00	.00	.00	.00	.00	1.5	1.5	63	221	4.6	.00
28	.00	.00	.00	.00	.00	.00	1.3	1.4	114	225	4.6	.00
29	.00	.00	.00	.00	.00	1.9	1.0	1.5	146	226	4.5	.00
30	.00	.00	.00	.00	---	4.6	1.3	1.8	166	227	4.5	.00
31	.00	---	.00	.00	---	4.4	---	1.9	---	237	4.5	---
TOTAL	7.51	1.88	.00	.00	.00	10.90	30.37	35.30	759.94	7510	4049.6	11.22
MEAN	.24	.063	.000	.000	.000	.35	1.01	1.14	25.3	242	131	.37
MAX	1.0	1.5	.00	.00	.00	4.6	5.1	2.7	166	301	308	4.4
MIN	.00	.00	.00	.00	.00	.00	.00	.35	.68	174	4.5	.00
AC-FT	15	3.7	.00	.00	.00	22	60	70	1510	14900	8030	22

CAL YR 1979 TOTAL 10755.33 MEAN 29.5 MAX 345 MIN .00 AC-FT 21330
WTR YR 1980 TOTAL 12416.72 MEAN 33.9 MAX 308 MIN .00 AC-FT 24630

06834000 FRENCHMAN CREEK AT PALISADE, NE

LOCATION.--Lat 40°21'12", long 101°07'35", in SW1/4SE1/4 sec.36, T.5 N., R.34 W., Hayes County, Hydrologic Unit 10250005, on right bank at upstream side of bridge on U.S. Highway 6, 0.7 mi (1.1 km) west of Palisade, and 1.5 mi (2.4 km) upstream from Stinking Water Creek.

DRAINAGE AREA.--1,110 mi² (2,870 km²), approximately, of which about 950 mi² (2,460 km²) contritutes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1894 to October 1896, June 1950 to current year. Published as Frenchman River at Palisade, October 1965 to September 1972.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,743.49 ft (836.216 m) National Geodetic Vertical Datum of 1929. October 1894 to October 1896, nonrecording gage at railroad bridge 0.4 mi downstream at different datum; June 1950 to Feb. 7, 1977, recording gage at site 2,000 ft (600 m) upstream at datum 4.0 ft (1.22 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation development above station and, since Oct. 23, 1950, by storage in Enders Reservoir (station 06832000).

AVERAGE DISCHARGE.--32 years, 86.0 ft³/s (2.436 m³/s), 62,310 acre-ft/yr (76.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,560 ft³/s (157 m³/s) June 17, 1956, gage height, 8.79 ft (2.679 m), site and datum then in use; minimum daily, 11 ft³/s (0.31 m³/s) Sept. 11, 12, 14, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 325 ft³/s (9.20 m³/s) July 23, gage height, 5.53 ft (1.686 m); minimum daily, 14 ft³/s (0.40 m³/s) Jan. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	27	22	24	22	35	47	32	28	129	208	25
2	17	24	30	24	25	37	47	31	29	143	210	24
3	17	24	40	22	30	54	45	31	28	158	217	23
4	17	25	45	20	30	37	44	29	28	160	226	21
5	18	24	38	18	35	35	43	29	27	164	228	19
6	18	23	32	15	32	37	44	28	25	170	235	18
7	18	23	30	15	25	35	45	28	25	178	236	15
8	18	24	29	14	20	34	45	28	24	183	224	15
9	18	24	29	20	18	33	44	27	23	205	222	35
10	19	24	29	30	18	32	43	26	23	222	237	33
11	19	25	31	40	18	32	44	26	22	248	263	27
12	18	25	30	42	20	32	42	25	23	262	258	22
13	18	25	28	44	18	32	41	26	22	245	257	19
14	19	25	26	40	15	32	40	25	22	237	259	19
15	20	24	25	32	15	32	38	27	35	234	218	22
16	19	24	23	30	20	33	38	31	169	237	160	19
17	19	23	21	27	25	32	37	34	69	245	115	20
18	19	24	25	26	30	32	36	31	48	235	99	22
19	20	23	30	27	42	32	35	31	38	226	69	21
20	21	26	40	31	72	32	34	31	35	235	57	20
21	22	28	35	28	79	31	34	31	34	236	50	20
22	26	32	30	34	52	31	33	30	32	231	45	19
23	25	31	28	36	40	31	34	29	31	250	40	19
24	25	30	28	27	38	31	36	28	29	234	35	19
25	25	30	27	25	36	31	35	28	28	220	31	19
26	24	31	26	23	35	32	34	29	37	213	29	18
27	23	32	25	20	36	33	33	29	43	213	29	19
28	23	30	24	18	33	35	32	27	43	206	30	19
29	23	25	26	18	35	60	32	27	75	204	29	19
30	25	20	26	18	---	39	32	27	110	203	26	18
31	30	---	26	20	---	49	---	26	---	201	25	---
TOTAL	641	775	904	808	914	1093	1167	887	1205	6527	4367	628
MEAN	20.7	25.8	29.2	26.1	31.5	35.3	38.9	28.6	40.2	211	141	20.9
MAX	30	32	45	44	79	60	47	34	169	262	263	35
MIN	17	20	21	14	15	31	32	25	22	129	25	15
AC-FT	1270	1540	1790	1600	1810	2170	2310	1760	2390	12950	8660	1250

CAL YR 1979 TOTAL 18960 MEAN 51.9 MAX 317 MIN 13 AC-FT 37610
WTR YR 1980 TOTAL 19916 MEAN 54.4 MAX 263 MIN 14 AC-FT 39500

06834000 FRENCHMAN CREEK AT PALISADE, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964 to March 1980 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	TEMPER-ATURE, WATER (DEG C) (00010)
OCT				
01...	1315	18	428	19.0
DEC				
10...	1400	29	443	6.0
JAN				
21...	1300	27	463	.0
MAR				
03...	1400	49	450	8.0

06835000 STINKING WATER CREEK NEAR PALISADE, NE

LOCATION.--Lat 40°22'10", long 101°06'50", in SW1/4NW1/4 sec.30, T.5 N., R.33 W., Hayes County, Hydrologic Unit 10250006, on right bank 25 ft (8 m) downstream from county bridge, 1.2 mi (1.9 km) upstream from mouth, and 1.8 mi (2.9 km) northwest of Palisade.

DRAINAGE AREA.--1,500 mi^2 (3,890 km^2), approximately, of which about 380 mi^2 (980 km^2) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1949 to current year.

REVISED RECORDS.--WSP 1730: 1952(M). WSP 1919: 1951(P), 1955. WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,740.99 ft (835.454 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation development above station.

AVERAGE DISCHARGE.--31 years, 41.2 ft^3/s (1.167 m^3/s), 29,850 acre-ft/yr (36.8 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,030 ft^3/s (85.8 m^3/s) June 17, 1956, gage height, 11.30 ft (3.444 m), from rating curve extended above 1,200 ft^3/s (34.0 m^3/s) on basis of slope-area measurement of peak flow; minimum daily, 6.0 ft^3/s (0.17 m^3/s) Aug. 4, 1955.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 150 ft^3/s (4.25 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 22	2100	180	5.1	5.08	1.548
June 21	2230	*293	8.3	6.02	1.835

Minimum daily discharge, 10 ft^3/s (0.28 m^3/s) Aug. 4, 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	29	30	26	27	39	47	35	29	24	12	14
2	15	29	35	26	30	31	50	37	35	22	11	14
3	15	27	30	25	32	37	52	37	34	22	11	14
4	15	26	30	25	32	39	54	36	31	22	10	13
5	16	26	32	24	36	39	61	36	28	21	10	13
6	16	26	32	23	35	34	78	35	27	20	11	13
7	16	26	33	20	33	36	95	35	26	19	12	13
8	16	26	32	22	30	40	102	35	25	18	11	14
9	16	26	32	28	25	39	93	35	25	17	11	18
10	16	26	31	39	25	41	92	34	25	17	12	20
11	17	26	31	40	25	40	79	34	25	17	13	17
12	17	26	30	36	26	40	71	35	26	17	13	16
13	17	26	25	31	24	39	63	35	25	17	13	15
14	17	26	24	33	23	38	56	35	25	16	14	15
15	17	26	23	33	24	37	50	35	24	15	15	15
16	17	26	24	34	28	37	47	37	36	15	18	15
17	18	26	26	34	30	37	45	42	62	15	19	15
18	19	26	32	33	33	36	44	49	62	15	19	15
19	19	26	36	33	35	36	42	47	41	15	18	15
20	19	27	30	31	75	35	39	43	79	15	18	15
21	20	30	29	27	108	35	37	38	240	16	17	15
22	23	33	30	28	165	35	36	36	136	16	16	15
23	24	28	29	30	114	34	35	34	53	15	15	15
24	24	29	29	32	67	34	34	33	38	16	15	15
25	23	29	28	30	54	33	33	32	33	17	14	15
26	23	27	29	27	48	34	33	31	30	16	15	15
27	22	27	29	25	43	35	33	30	28	15	15	15
28	22	23	29	22	42	38	33	29	26	14	16	15
29	22	23	30	23	40	45	33	29	24	14	15	16
30	23	25	30	25	---	30	34	28	26	13	15	16
31	26	---	28	30	---	31	---	28	---	13	14	---
TOTAL	585	802	918	895	1309	1134	1601	1095	1324	524	438	451
MEAN	18.9	26.7	29.6	28.9	45.1	36.6	53.4	35.3	44.1	16.9	14.1	15.0
MAX	26	33	36	40	165	45	102	49	240	24	19	20
MIN	15	23	23	20	23	30	33	28	24	13	10	13
AC-FT	1160	1590	1820	1780	2600	2250	3180	2170	2630	1040	869	895

CAL YR 1979 TOTAL 10459 MEAN 28.7 MAX 120 MIN 14 AC-FT 20750
WTR YR 1980 TOTAL 11076 MEAN 30.3 MAX 240 MIN 10 AC-FT 21970

06835500 FRENCHMAN CREEK AT CULBERTSON, NE

LOCATION.--Lat 40°14'05", long 100°52'40", in SW1/4SE1/4 sec.12, T.3 N., R.32 W., Hitchcock County, Hydrologic Unit 10250005, on right bank 19 ft (6 m) upstream from bridge on U.S. Highways 6 and 34, 2 mi (3 km) west of Culbertson, and 4.5 mi (7.2 km) upstream from mouth.

DRAINAGE AREA.--2,770 mi^2 (7,170 km^2), approximately, of which about 1,470 mi^2 (3,810 km^2) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1913 to September 1915 (gage heights and discharge measurements only), October 1930 to current year. Published as Frenchman River at Culbertson October 1965 to September 1972. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1390: 1931, 1933, 1934(M), 1938(M). WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,583.44 ft (787.433 m) National Geodetic Vertical Datum of 1929. See WSP 1919 for history of changes prior to Nov. 2, 1950.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation development above station and, since Oct. 23, 1950, by storage in Enders Reservoir (station 06832000). Prinicipal diversion is by Culbertson Canal, 20,800 acres (84.2 km^2).

AVERAGE DISCHARGE.--50 years, 105 ft^3/s (2.974 m^3/s), 76,070 acre-ft/yr (93.8 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,000 ft^3/s (425 m^3/s), estimated, May 31, 1935, gage height, 14.8 ft (4.51 m), from floodmarks, present site and datum; no flow Aug. 7, 8, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 261 ft^3/s (7.39 m^3/s) Feb. 21, gage height, 4.05 ft (1.234 m); maximum gage height, 4.96 ft (1.512 m) Feb. 8, backwater from ice; no flow Aug. 7, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	58	40	48	45	85	115	39	29	27	.55	3.2
2	31	55	50	45	55	75	121	41	37	21	.55	2.7
3	35	60	61	40	65	78	123	41	33	20	.41	5.6
4	34	58	69	35	75	90	123	40	29	20	.41	34
5	34	60	74	30	80	83	121	40	26	17	.55	17
6	38	54	74	25	80	83	124	38	25	12	.28	15
7	40	54	71	28	75	85	126	34	25	9.6	.00	14
8	39	61	71	34	70	86	133	32	25	10	.00	14
9	37	57	71	41	60	87	134	33	25	8.4	.14	17
10	36	63	71	58	55	87	135	32	24	8.1	.78	30
11	35	62	70	70	50	90	130	30	24	7.3	2.4	31
12	39	62	63	68	50	91	119	30	24	7.3	3.5	26
13	40	61	54	83	45	87	117	29	23	8.8	1.4	24
14	41	58	50	92	40	85	116	29	23	7.0	1.4	22
15	40	61	45	95	40	87	114	29	23	6.3	2.4	21
16	37	60	40	91	45	87	108	43	77	5.6	4.5	21
17	36	63	37	89	60	81	104	50	97	4.8	6.6	25
18	39	62	52	86	80	81	101	47	66	4.5	17	29
19	40	60	72	84	96	85	98	48	49	4.2	5.2	24
20	44	60	74	82	143	88	97	43	36	3.5	3.5	30
21	43	70	72	79	213	88	93	36	56	3.2	3.4	31
22	47	65	71	73	192	86	66	33	112	2.7	3.0	29
23	48	59	71	78	177	84	59	32	59	2.4	2.3	27
24	46	55	69	82	131	77	53	31	39	3.8	2.0	30
25	50	55	69	76	115	78	48	31	31	4.1	2.4	31
26	47	57	68	56	108	77	44	30	27	2.4	3.0	30
27	50	55	69	45	104	79	41	29	22	2.0	2.7	34
28	49	45	70	35	101	85	40	29	18	1.4	2.4	35
29	49	27	71	30	95	74	40	29	16	1.1	3.0	32
30	46	25	73	35	---	82	40	28	20	.66	2.4	32
31	58	---	67	40	---	92	---	29	---	.78	2.7	---
TOTAL	1286	1702	1979	1853	2545	2603	2883	1085	1120	236.94	80.87	716.5
MEAN	41.5	56.7	63.8	59.8	87.8	84.0	96.1	35.0	37.3	7.64	2.61	23.9
MAX	58	70	74	95	213	92	135	50	112	27	17	35
MIN	31	25	37	25	40	74	40	28	16	.66	.00	2.7
AC-FT	2550	3380	3930	3680	5050	5160	5720	2150	2220	470	160	1420

CAL YR 1979 TOTAL 18083.00 MEAN 49.5 MAX 193 MIN 11 AC-FT 35870
WTR YR 1980 TOTAL 18090.31 MEAN 49.4 MAX 213 MIN .00 AC-FT 35880

06835500 FRENCHMAN CREEK AT CULBERTSON, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1970 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)
OCT							
29...	1345	49	510	8.1	10.0	40	10.4
NOV							
26...	1400	61	480	8.0	3.0	50	12.9
DEC							
20...	0915	80	475	8.1	.0	70	12.7
JAN							
21...	1000	80	470	7.8	.0	30	13.1
AUG							
15...	0900	4.0	490	7.8	18.0	20	7.0
SEP							
30...	1220	32	685	8.1	19.0	35	9.5

DATE	TIME	COLOR (PLAT-INUM COBALT UNITS) (00080)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
JAN											
21...	1000	20	210	0	56	16	21	.6	13	220	32
AUG											
15...	0900	0	180	0	45	17	25	.8	15	200	43

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
JAN											
21...	6.5	.9	54	342	.47	73.9	2.4	.030	110	<10	<1
AUG											
15...	7.1	.9	40	325	.44	3.51	2.7	.030	200	20	70

06836000 BLACKWOOD CREEK NEAR CULBERTSON, NE

LOCATION.--Lat 40°14'10", long 100°48'39", in SE1/4SE1/4 sec.10, T.3 N., R.31 W., Hitchcock County, Hydrologic Unit 10250004, on right bank 500 ft (152 m) upstream from bridge on U.S. Highways 6 and 34, 0.2 mi (0.3 km) north of Burlington Northern Inc. bridge, 1 mi (2 km) east of Culbertson, and 1.8 mi (2.9 km) upstream from mouth.

DRAINAGE AREA.--320 mi² (830 km²), approximately, of which about 270 mi² (700 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--May 1946 to current year.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,555.25 ft (778.840 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1967, at site 0.2 mi (0.3 km) downstream at present datum and Oct. 1, 1967, to Aug. 28, 1968, at site 0.8 mi (1.3 km) downstream at datum 8.96 ft (2.731 m) lower.

REMARKS.--Records good. Natural flow affected by irrigation development above station, return flow from irrigated areas, and waste from Culbertson Canal.

AVERAGE DISCHARGE.--34 years, 6.37 ft³/s (0.180 m³/s), 4,620 acre-ft/yr (5.70 hm³/yr); median of yearly mean discharges, 5.6 ft³/s (0.159 m³/s), 4,100 acre-ft/yr (5.06 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,650 ft³/s (46.7 m³/s) June 17, 1955, gage height, 14.64 ft (4.462 m), site then in use; no flow Jan. 4-6, 1950.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 31, 1935, reached a stage of 24.0 ft (7.32 m), at site 0.2 mi (0.3 km) downstream, at present datum, from floodmarks, discharge, about 5,300 ft³/s (150 m³/s), from information by Nebraska Department of Roads.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 184 ft³/s (5.21 m³/s) Feb. 21 at 1100, gage height, 4.81 ft (1.466 m), no other peak above base of 150 ft³/s (4.25 m³/s); minimum daily, 0.61 ft³/s (0.017 m³/s) Sept. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.79	1.2	.94	.94	.94	1.2	1.9	3.0	1.5	4.5	3.9	2.8
2	.89	1.3	1.0	1.0	.94	1.1	1.6	2.0	1.5	2.1	3.6	1.6
3	.87	1.3	1.1	.94	.94	1.1	1.5	1.8	1.4	4.8	2.1	1.8
4	.89	1.3	1.1	.94	1.0	1.2	1.3	2.4	1.4	2.9	2.6	20
5	.81	1.4	1.2	.86	1.0	1.0	1.4	2.2	1.4	1.4	1.7	15
6	.82	1.3	1.1	.90	1.1	1.0	1.2	2.0	1.4	1.6	2.0	17
7	.76	1.3	1.0	.95	1.1	1.0	1.3	1.7	1.6	1.6	4.0	8.6
8	.64	1.4	1.0	1.0	1.1	1.0	1.2	2.4	1.7	1.8	3.0	1.6
9	.78	1.3	1.1	1.1	1.2	1.0	1.1	3.0	1.6	1.6	1.7	1.0
10	.97	1.3	1.1	1.1	1.1	1.0	1.2	2.5	1.6	2.7	6.4	.90
11	1.0	1.3	.94	1.3	1.0	1.1	1.3	2.4	1.5	2.9	13	.92
12	1.0	1.2	1.0	1.2	.95	1.1	1.2	2.5	2.0	3.0	5.1	.81
13	.85	1.2	1.0	1.2	1.1	1.1	1.1	2.6	1.7	3.2	5.0	.73
14	.94	.96	1.1	1.2	1.1	1.0	1.1	3.4	1.4	3.5	8.5	.72
15	1.0	.79	1.0	1.3	1.0	1.0	1.1	2.7	1.4	4.3	15	.73
16	1.1	.79	.88	1.2	1.2	1.1	1.1	4.8	1.4	3.8	9.7	.71
17	1.2	.79	1.0	1.2	1.1	1.0	1.0	7.4	1.6	5.4	4.3	.71
18	1.2	.79	1.0	1.1	1.1	1.0	1.1	6.5	1.5	3.6	8.7	.71
19	1.4	.73	1.1	1.0	1.4	1.0	1.1	5.3	2.0	2.0	14	.72
20	1.3	1.1	1.1	.94	2.1	1.0	1.2	4.9	1.9	1.9	12	.67
21	1.4	.94	1.2	.92	156	1.1	1.2	1.6	1.8	1.5	5.1	.70
22	1.5	.85	1.2	.99	65	1.1	1.0	1.3	2.0	.85	4.5	.61
23	1.2	.79	1.2	1.0	22	1.1	.94	1.6	2.2	1.3	4.9	.64
24	1.2	.85	1.2	.92	4.1	.94	.88	1.6	1.8	2.0	5.8	.67
25	1.2	.85	1.2	.88	2.0	.94	.85	1.7	1.6	2.0	4.7	.67
26	1.1	1.1	1.2	.87	1.3	.97	.79	1.7	1.6	3.2	2.9	.69
27	1.2	1.0	1.2	.94	1.3	.97	11	1.7	1.4	1.5	2.5	.71
28	1.2	.85	1.1	.86	1.3	1.6	12	1.7	1.6	1.6	3.7	.79
29	1.1	.85	1.2	.86	1.2	1.4	8.7	1.6	4.8	4.3	2.5	.79
30	1.3	.94	1.1	.86	---	1.2	3.8	1.5	6.8	6.4	2.2	.73
31	1.7	---	1.0	.86	---	1.1	---	1.5	---	5.0	2.4	---
TOTAL	33.31	31.77	33.56	31.33	276.67	33.42	66.16	83.0	57.1	88.25	167.5	84.73
MEAN	1.07	1.06	1.08	1.01	9.54	1.08	2.21	2.68	1.90	2.85	5.40	2.82
MAX	1.7	1.4	1.2	1.3	156	1.6	12	7.4	6.8	6.4	15	20
MIN	.64	.73	.88	.86	.94	.94	.79	1.3	1.4	.85	1.7	.61
AC-FT	66	63	67	62	549	66	131	165	113	175	332	168

CAL YR 1979 TOTAL 1356.81 MEAN 3.72 MAX 55 MIN .64 AC-FT 2690
WTR YR 1980 TOTAL 986.80 MEAN 2.70 MAX 156 MIN .61 AC-FT 1960

06836500 DRIFTWOOD CREEK NEAR MCCOOK, NE

LOCATION.--Lat 40°08'50", long 100°39'55", in SW1/4SW1/4 sec.12, T.2 N., R.30 W., Red Willow County, Hydrologic Unit 10250004, on right bank 50 ft (15 m) downstream from privately owned bridge, 600 ft (183 m) downstream from siphon and wasteway on Meeker-Driftwood Canal, 4.5 mi (7.2 km) southwest of McCook, and 4.5 mi (7.2 km) upstream from mouth.

DRAINAGE AREA.--360 mi² (930 km²), approximately, of which about 350 mi² (910 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--March 1946 to current year.

REVISED RECORDS.--WSP 1210: 1950.

GAGE.--Water-stage recorder. Datum of gage is 2,493.78 ft (760.104 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 12, 1962, at site 0.2 mi (0.3 km) downstream in old channel at present datum, and Oct. 12, 1962, to Apr. 11, 1963, at site 0.5 mi (0.8 km) downstream at datum 3.75 ft (1.143 m) lower.

REMARKS.--Records good. Natural flow affected by waste from Meeker-Driftwood Canal and by irrigation development above station.

AVERAGE DISCHARGE.--34 years, 10.5 ft³/s (0.297 m³/s), 7,610 acre-ft/yr (9.38 hm³/yr); median of yearly mean discharges, 8.2 ft³/s (0.232 m³/s), 5,900 acre-ft/yr (7.27 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,740 ft³/s (134 m³/s) Aug. 7, 1950, gage height, 25.43 ft (7.751 m), at site then in use, from floodmark, from rating curve extended above 3,000 ft³/s (85.0 m³/s); no flow at times in 1946-50, 1952-56.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 408 ft³/s (11.6 m³/s) July 2 at 2145, gage height, 13.98 ft (4.261 m), no other peak above base of 300 ft³/s (8.50 m³/s); minimum daily, 2.3 ft³/s (0.065 m³/s) Oct. 5, June 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	6.3	4.5	4.5	5.4	5.8	12	5.7	4.5	4.6	5.0	9.2
2	2.6	5.1	5.1	4.3	5.4	5.8	11	5.6	18	128	5.8	9.7
3	2.9	5.0	5.4	4.3	5.4	6.1	9.6	5.5	37	83	4.8	6.7
4	2.8	5.0	5.2	4.3	5.7	6.3	9.4	5.4	6.9	11	5.1	5.1
5	2.3	5.0	5.2	4.1	5.7	5.7	8.6	5.2	5.6	6.4	6.2	10
6	2.8	5.0	5.0	4.1	5.7	5.7	8.3	5.2	3.6	5.5	5.3	5.0
7	3.1	4.7	5.2	4.0	5.6	5.2	8.0	5.2	3.6	6.7	4.6	4.5
8	3.5	4.7	4.7	4.1	5.7	5.2	7.4	5.0	3.2	6.3	6.5	4.3
9	2.9	4.7	4.5	3.8	5.7	5.2	7.1	5.0	2.9	6.3	7.8	4.7
10	3.4	4.7	4.7	4.1	5.9	5.2	7.1	5.0	2.7	6.0	7.7	5.0
11	3.6	4.7	4.9	4.3	5.6	5.2	7.3	4.7	2.6	6.1	97	5.0
12	3.8	4.7	4.8	4.4	5.5	5.2	7.1	4.6	2.6	5.7	22	5.2
13	3.8	4.7	4.7	4.4	5.3	5.2	6.9	4.5	2.5	4.8	11	5.2
14	4.1	4.7	4.7	4.7	5.2	4.7	7.5	4.5	2.3	5.9	6.8	4.5
15	3.9	4.7	4.5	4.7	5.2	4.7	7.3	4.6	2.4	6.4	7.7	4.5
16	4.2	4.7	4.3	4.7	4.9	4.7	7.0	6.4	53	6.0	7.7	4.5
17	4.3	4.7	4.5	4.7	4.9	4.7	6.7	7.3	65	5.0	7.4	4.3
18	4.5	4.5	4.7	5.0	5.2	4.4	6.3	6.1	8.9	5.0	7.4	4.2
19	5.3	4.5	4.7	5.0	5.4	4.5	5.9	5.8	5.3	4.2	6.9	4.3
20	4.4	4.6	4.7	5.2	7.1	4.7	5.7	5.8	7.6	5.0	5.5	4.3
21	5.0	5.4	4.7	5.1	7.1	4.7	5.7	5.3	4.7	4.6	5.2	4.1
22	5.5	5.2	4.7	5.2	7.1	5.0	5.7	5.1	3.6	4.6	5.1	3.8
23	5.7	5.0	4.5	5.4	6.6	5.0	5.9	4.9	3.0	5.3	5.5	3.8
24	5.5	4.7	4.5	5.4	6.4	5.2	5.9	4.9	7.9	4.8	5.7	3.6
25	5.4	4.7	4.5	5.5	6.4	5.4	5.7	5.0	10	6.1	6.0	3.6
26	5.1	4.7	4.5	5.0	6.4	5.4	5.7	5.0	3.7	8.1	7.9	3.6
27	5.0	4.7	4.5	5.7	6.4	5.5	5.7	4.9	2.9	6.6	6.9	3.6
28	5.0	4.4	4.5	5.7	6.4	7.6	5.7	4.7	4.0	6.0	6.4	3.4
29	5.3	4.3	4.5	5.4	6.4	9.3	5.7	4.5	3.5	5.5	7.0	3.4
30	8.6	4.5	4.3	5.4	---	8.1	5.7	4.6	4.3	4.0	9.1	3.4
31	7.0	---	4.2	5.4	---	7.7	---	4.7	---	4.1	8.7	---
TOTAL	134.9	144.3	145.4	147.9	169.7	173.1	213.6	160.7	287.8	377.6	311.7	146.5
MEAN	4.35	4.81	4.69	4.77	5.85	5.58	7.12	5.18	9.59	12.2	10.1	4.88
MAX	8.6	6.3	5.4	5.7	7.1	9.3	12	7.3	65	128	97	10
MIN	2.3	4.3	4.2	3.8	4.9	4.4	5.7	4.5	2.3	4.0	4.6	3.4
AC-FT	268	286	288	293	337	343	424	319	571	749	618	291

CAL YR 1979 TOTAL 2580.1 MEAN 7.07 MAX 109 MIN 2.3 AC-FT 5120
WTR YR 1980 TOTAL 2413.2 MEAN 6.59 MAX 128 MIN 2.3 AC-FT 4790

06837000 REPUBLICAN RIVER AT MCCOOK, NE

LOCATION.--Lat 40°11'15", long 100°37'05", in SW1/4NE1/4 sec.32, T.3 N., R.29 W., Red Willow County, Hydrologic Unit 10250004, on left bank 25 ft (8 m) downstream from bridge on U.S. Highway 83 at south edge of McCook, 2.5 mi (4.0 km) downstream from Driftwood Creek, and 10.5 mi (16.9 km) upstream from Red Willow Creek.

DRAINAGE AREA.--12,310 mi² (31,900 km²), approximately, of which about 6,260 mi² (16,200 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1930 to June 1932, October 1954 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,456.37 ft (748.702 m) National Geodetic Vertical Datum of 1929. October 1930 to June 1932 nonrecording gage on former highway bridge 325 ft (99.1 m) upstream at different datum and October 1954 to Mar. 13, 1959, on highway bridge 25 ft (7.6 m) upstream at present datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation development above station and by storage in Bonny Reservoir, Enders Reservoir (station 06832000), and Swanson Lake (station 06829000).

AVERAGE DISCHARGE.--27 years, 187 ft³/s (5.296 m³/s), 135,500 acre-ft/yr (0.167 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,890 ft³/s (167 m³/s) Mar. 21, 1960, gage height, 9.14 ft (2.786 m); no flow for several days in July and August 1931.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood since at least 1826 occurred May 31, 1935, discharge, about 245,000 ft³/s (6,940 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,730 ft³/s (49.0 m³/s) Aug. 11, gage height, 6.62 ft (2.018 m); minimum daily, 32 ft³/s (0.91 m³/s) Sept. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	84	60	56	62	110	234	91	64	142	77	41
2	44	79	68	60	80	120	264	87	70	189	77	52
3	41	80	74	65	90	135	234	86	114	322	74	48
4	44	82	80	65	95	138	225	82	66	127	75	42
5	44	82	86	70	100	129	214	80	65	96	79	39
6	44	79	94	70	100	131	209	80	60	110	82	38
7	45	79	98	54	92	133	211	79	60	110	74	44
8	47	80	94	50	76	133	214	75	55	108	74	38
9	48	82	93	52	62	131	217	72	50	106	74	38
10	52	82	93	52	66	131	210	70	49	104	79	36
11	47	86	89	76	70	129	200	69	45	104	1010	43
12	50	82	80	90	70	127	190	69	50	98	280	40
13	53	86	70	100	80	118	180	69	45	94	112	36
14	55	80	68	115	68	116	174	69	41	93	91	35
15	56	80	72	118	60	108	177	69	38	93	98	35
16	53	84	80	114	54	108	167	96	55	87	96	34
17	53	86	64	104	66	110	159	104	290	80	84	37
18	55	86	72	100	90	116	154	98	123	82	82	36
19	58	86	90	100	120	112	150	94	100	82	72	37
20	58	91	94	96	150	114	150	89	84	80	62	32
21	61	102	95	94	260	112	147	77	70	84	53	37
22	70	96	96	91	320	114	129	72	129	86	49	38
23	72	93	98	93	250	114	118	77	133	86	45	37
24	74	89	98	96	190	114	110	69	89	82	45	35
25	74	91	98	94	170	114	100	66	84	87	44	36
26	74	94	87	60	150	116	94	61	66	87	44	36
27	72	84	91	48	142	112	91	62	62	84	43	36
28	72	66	96	52	136	140	96	62	104	79	43	38
29	75	45	98	56	129	159	106	62	133	79	43	39
30	82	48	94	60	---	142	94	62	131	79	42	37
31	96	---	70	60	---	150	---	62	---	79	43	---
TOTAL	1814	2464	2640	2411	3398	3836	5018	2360	2525	3219	3246	1150
MEAN	58.5	82.1	85.2	77.8	117	124	167	76.1	84.2	104	105	38.3
MAX	96	102	98	118	320	159	264	104	290	322	1010	52
MIN	41	45	60	48	54	108	91	61	38	79	42	32
AC-FT	3600	4890	5240	4780	6740	7610	9950	4680	5010	6380	6440	2280

CAL YR 1979 TOTAL 34884 MEAN 95.6 MAX 314 MIN 27 AC-FT 69190
WTR YR 1980 TOTAL 34081 MEAN 93.1 MAX 1010 MIN 32 AC-FT 67600

06837000 REPUBLICAN RIVER AT MC COOK, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1967 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: December 1966 to current year.

INSTRUMENTATION.--Temperature recorder since Dec. 13, 1966.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 38.5°C June 24, 1971; minimum, 0.0°C on many days during winter periods.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	20.5	15.0	28.0	17.0			---	---	28.0	19.0
2	---	---	21.0	14.5	28.0	17.0			---	---	29.5	17.0
3	---	---	19.5	14.5	28.5	19.0			---	---	31.5	20.0
4	---	---	22.0	14.5	30.0	20.5			---	---	27.0	18.0
5	---	---	23.0	14.5	31.0	21.0			---	---	29.0	18.0
6	---	---	24.0	15.5	30.0	20.5			---	---	30.0	20.0
7	---	---	22.0	16.0	28.0	20.0			---	---	29.5	21.5
8	---	---	22.0	13.0	25.5	18.0			---	---	31.5	20.5
9	---	---	21.0	14.0	28.5	16.0			---	---	24.0	18.0
10	---	---	24.5	14.5	29.0	17.0			---	---	23.5	17.0
11	---	---	18.5	14.5	29.0	19.0			---	---	27.0	18.5
12	---	---	19.5	13.5	28.0	20.0			---	---	27.0	19.0
13	---	---	23.5	11.5	27.0	19.0			---	---	27.0	18.0
14	---	---	21.0	12.0	27.0	19.5			---	---	24.0	18.0
15	---	---	18.0	13.0	26.5	20.0			---	---	32.0	17.0
16	---	---	14.0	11.0	25.5	20.0			---	---	22.0	15.5
17	---	---	14.0	10.5	24.0	18.5			---	---	27.0	11.5
18	---	---	16.5	10.5	26.5	20.0			---	---	28.5	15.5
19	---	---	23.0	11.0	23.5	19.5			34.0	23.5	30.5	17.0
20	---	---	24.5	14.5	23.0	17.0			30.0	23.0	28.5	16.0
21	---	---	26.5	14.5	26.0	19.5			31.0	19.5	30.5	16.0
22	---	---	26.0	15.5	27.0	20.5			30.5	21.0	25.5	15.0
23	---	---	24.5	16.0	28.5	23.0			32.0	21.0	24.0	13.5
24	21.0	14.5	25.5	16.5	29.5	24.0			34.5	22.0	25.5	14.0
25	20.0	11.0	28.0	18.0	30.0	24.5			34.5	22.0	24.5	13.5
26	16.5	14.0	24.0	17.0	29.0	25.0			25.0	21.0	21.5	11.0
27	18.5	12.0	23.5	17.0	27.0	21.0			25.5	19.0	25.0	12.0
28	21.5	11.0	28.0	16.5	27.0	20.5			32.0	19.0	25.5	15.5
29	23.0	13.0	28.5	18.5	26.0	23.0			33.0	20.0	26.0	16.0
30	19.0	15.5	26.5	15.0	29.0	23.5			29.0	20.5	26.5	13.0
31	---	---	21.0	17.0	---	---			31.0	19.5	---	---
MONTH	23.0	11.0	28.5	10.5	31.0	16.0			34.5	19.0	32.0	11.0

06837300 RED WILLOW CREEK ABOVE HUGH BUTLER LAKE, NE

LOCATION.--Lat 40°24'05", long 100°46'45", in NE1/4SE1/4 sec.13, T.5 N., R.31 W., Hayes County, Hydrologic Unit 10250007, on right bank 1,000 ft (305 m) above county road bridge, 7.2 mi (11.6 km) upstream from Red Willow Dam, and 12 mi (19 km) northeast of Culbertson.

DRAINAGE AREA.--600 mi^2 (1,550 km^2), approximately, of which about 200 mi^2 (520 km^2) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder. Artificial control since March 1961. Datum of gage is 2,594.80 ft (790.895 m) National Geodetic Vertical Datum of 1929. Prior to Mar. 23, 1961, nonrecording gage at present site and datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by pump irrigation development above station.

AVERAGE DISCHARGE.--20 years, 28.5 ft^3/s (0.807 m^3/s), 20,650 acre-ft/yr (25.5 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,020 ft^3/s (114 m^3/s) June 16, 1972, gage height, 13.27 ft (4.045 m), from rating curve extended above 1,000 ft^3/s (28.3 m^3/s) on basis of slope-conveyance study; minimum daily, 4.0 ft^3/s (0.11 m^3/s) July 4, 5, 1963.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 150 ft^3/s (4.25 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
June 22	0830	*223	6.3	2.84	0.866
June 23	0445	159	4.5	2.45	0.747

Minimum daily discharge, 4.9 ft^3/s (0.14 m^3/s) Aug. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	25	22	20	18	30	38	23	16	13	7.6	10
2	11	27	22	23	18	28	48	22	18	13	6.7	9.7
3	11	29	24	25	22	30	60	23	17	13	6.8	9.7
4	11	30	24	27	24	30	67	23	18	13	6.8	9.6
5	11	28	26	27	26	30	72	24	18	11	6.6	9.6
6	12	26	27	24	26	33	79	23	18	12	5.8	9.4
7	12	26	31	12	24	35	87	22	16	12	4.9	9.4
8	12	27	34	12	22	35	92	21	15	12	5.9	9.6
9	13	27	35	13	16	36	84	20	15	15	6.4	10
10	13	26	35	13	18	38	64	20	14	12	6.0	11
11	13	25	33	15	22	39	50	21	13	11	10	14
12	14	25	20	18	18	39	43	21	20	9.9	8.9	18
13	14	24	13	18	22	37	39	21	18	10	7.9	17
14	14	23	14	20	20	35	36	20	18	7.9	11	15
15	15	23	15	24	16	34	34	20	17	8.2	11	13
16	15	23	15	29	12	32	31	23	15	8.9	13	12
17	16	23	12	29	14	32	30	28	14	8.2	15	13
18	16	24	15	29	28	29	29	31	20	5.8	15	14
19	16	24	20	28	40	23	28	36	19	6.5	14	13
20	16	23	22	28	60	26	27	34	18	7.0	13	12
21	17	25	22	14	75	27	25	32	18	7.6	12	12
22	18	26	24	18	93	27	24	29	86	8.8	11	12
23	20	26	25	24	86	27	25	26	112	8.4	11	11
24	22	25	25	27	74	27	25	23	78	8.1	10	11
25	23	24	25	27	59	26	25	22	35	7.9	9.4	11
26	23	24	25	18	59	26	23	20	23	8.2	10	11
27	22	23	25	14	52	27	22	19	19	6.6	10	10
28	22	22	25	14	46	31	21	18	17	7.5	11	10
29	21	20	27	12	44	34	21	17	15	5.5	9.7	10
30	20	22	27	12	---	35	23	16	14	7.2	10	10
31	23	---	25	14	---	34	---	17	---	7.8	10	---
TOTAL	496	745	734	628	1054	972	1272	715	754	293.0	296.4	347.0
MEAN	16.0	24.8	23.7	20.3	36.3	31.4	42.4	23.1	25.1	9.45	9.56	11.6
MAX	23	30	35	29	93	39	92	36	112	15	15	18
MIN	10	20	12	12	12	23	21	16	13	5.5	4.9	9.4
AC-FT	984	1480	1460	1250	2090	1930	2520	1420	1500	581	588	688

CAL YR 1979 TOTAL 9440.6 MEAN 25.9 MAX 246 MIN 8.5 AC-FT 18730
WTR YR 1980 TOTAL 8306.4 MEAN 22.7 MAX 112 MIN 4.9 AC-FT 16480

06837390 HUGH BUTLER LAKE NEAR MCCOOK, NE

LOCATION.--Lat 40°21'35", long 100°39'55", in SW1/4NW1/4 sec.31, T.5 N., R.29 W., Frontier County, Hydrologic Unit 10250007, in gate-control house at outlet tube of Red Willow Dam on Red Willow Creek, 12 mi (19 km) north of McCook.

DRAINAGE AREA.--730 mi² (1,890 km²), approximately, of which about 310 mi² (800 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--September 1961 to current year.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to July 10, 1962, nonrecording gage at present datum.

REMARKS.--Reservoir is formed by earthfill dam; storage began Sept. 5, 1961. Capacity, 31,470 acre-ft (38.8 hm³) between elevations 2,522.0 ft (769 m), sill of outlet works, and 2,581.8 ft (787 m), top of irrigation pool. Top of flood-control pool and crest of mean spillway at elevation 2,604.9 ft (794 m), capacity, 86,360 acre-ft (0.106 km³). Top of superstorage flood-control pool at elevation 2,627.8 ft (801 m), capacity, 162,600 acre-ft (0.200 km³). Dead storage, 6,310 acre-ft (7.78 hm³). Figures given herein represent total contents. Water used for irrigation in Frenchman-Cambridge irrigation project.

COOPERATION.--Capacity table furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 41,680 acre-ft (51.4 hm³) July 15, 16, 1967, elevation, 2,584.14 ft (787.646 m); minimum since operation of reservoir began, 16,930 acre-ft (20.9 hm³) Sept. 8, 1978, elevation, 2,565.31 ft (781.906 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 32,570 acre-ft (40.2 hm³) June 26, 27, elevation, 2,578.45 ft (785.912 m); minimum, 19,750 acre-ft (24.4 hm³) Sept. 10, 11, elevation, 2,568.10 ft (782.757 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

2,565	16,630	2,575	27,800
2,570	21,800	2,580	34,910

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22680	23140	24100	25210	26220	28660	30150	31580	32050	32030	25040	20220
2	22700	23160	24140	25250	26260	28700	30290	31610	32060	31830	24820	20120
3	22660	23200	24170	25290	26290	28740	30360	31620	32050	31800	24610	20040
4	22660	23230	24220	25340	26360	28780	30480	31630	32090	31730	24350	19990
5	22650	23270	24260	25380	26380	28800	30610	31650	32120	31620	24070	19930
6	22660	23300	24310	25380	26410	28840	30770	31660	32120	31510	23810	19880
7	22660	23340	24330	25400	26520	28910	30910	31650	32080	31370	23530	19830
8	22660	23370	24380	25400	26560	28950	31010	31630	32050	31130	23200	19800
9	22630	23390	24440	25410	26590	28990	31130	31630	32050	30830	22930	19770
10	22620	23430	24500	25490	26640	29030	31270	31630	32030	30470	22630	19750
11	22620	23450	24530	25510	26680	29070	31280	31630	32030	30190	22460	19780
12	22620	23490	24560	25530	26720	29160	31310	31680	32030	29920	22390	19810
13	22630	23510	24570	25550	26740	29170	31340	31660	32030	29600	22360	19810
14	22650	23530	24630	25600	26770	29190	31400	31650	31970	29300	22490	19850
15	22660	23570	24650	25620	26820	29260	31400	31650	31970	29000	22520	19870
16	22670	23590	24670	25660	26830	29270	31450	31830	31960	28710	22590	19870
17	22680	23630	24680	25700	26870	29310	31470	31860	31960	28410	22580	19880
18	22690	23660	24710	25760	26920	29320	31480	31900	31970	28160	22550	19910
19	22740	23670	24750	25810	27050	29320	31490	31930	32020	27920	22540	19920
20	22750	23750	24790	25850	27380	29320	31510	31970	32020	27700	22510	19920
21	22760	23880	24810	25900	27670	29340	31550	32000	32060	27490	22460	19930
22	22820	23880	24860	25920	27840	29380	31550	32030	32200	27280	22390	19930
23	22840	23890	24890	25970	27920	29390	31550	32030	32420	27070	22370	19940
24	22860	23920	24930	25980	28140	29390	31550	32050	32550	26810	22250	19940
25	22880	23960	24970	26070	28300	29450	31550	32050	32550	26580	21970	19940
26	22920	24010	24990	26070	28390	29470	31550	32030	32570	26330	21580	19940
27	22940	24070	25010	26070	28470	29600	31550	32030	32490	26130	21280	19940
28	22980	24090	25090	26080	28540	29770	31550	32030	32430	25930	21030	19960
29	22990	24040	25120	26130	28610	29900	31550	32030	32330	25690	20810	19980
30	23100	24070	25160	26160	---	29900	31580	32030	32200	25440	20570	19980
31	23120	---	25180	26170	---	29960	---	32030	---	25220	20380	---
MAX	23120	24090	25180	26170	28610	29960	31580	32050	32570	32030	25040	20220
MIN	22620	23140	24100	25210	26220	28660	30150	31580	31960	25220	20380	19750
†	2571.16	2571.98	2572.91	2573.71	2575.61	2576.62	2577.77	2578.09	2578.20	2572.94	2568.70	2568.32
‡	+420	+950	+1110	+990	+2440	+1350	+1620	+450	+170	-6980	-4840	-400

CAL YR 1979 MAX 28580 MIN 20320 +4890
WTR YR 1980 MAX 32570 MIN 19750 -2720

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

06837500 RED WILLOW CREEK NEAR MCCOOK, NE

LOCATION.--Lat 40°20'50", long 100°38'35", in SW1/4NW1/4 sec.6, T.4 N., R.29 W., Red Willow County, Hydrologic Unit 10250007, on left bank 45 ft (14 m) downstream from bridge on U.S. Highway 83, 3 mi (5 km) downstream from Red Willow Dam and 10 mi (16 km) north of McCook.

DRAINAGE AREA.--740 mi² (1,920 km²), approximately, of which about 320 mi² (830 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1940 to September 1947. Annual maximums, water years 1958-60. October 1960 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder, concrete control since Dec. 23, 1965. Datum of gage is 2,485.97 ft (757.724 m) National Geodetic Vertical Datum of 1929. October 1940 to September 1947 water-stage recorder at site 45 ft (13.7 m) upstream at datum 9.55 ft (2.911 m) higher. Nov. 22, 1957, to Sept. 30, 1960, crest-stage gage, Oct. 1, 1960, to Apr. 5, 1961, nonrecording gage, and Apr. 6, 1961 to Sept. 26, 1974 water-stage recorder at site 45 ft (13.7 m) upstream, present datum.

REMARKS.--Records fair. Natural flow affected by irrigation development above station and, since Sept. 5, 1961, by storage in Hugh Butler Lake (station 06837390).

AVERAGE DISCHARGE.--27 years, 24.8 ft³/s (0.702 m³/s), 17,970 acre-ft/yr (22.2 hm³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,000 ft³/s (850 m³/s) June 22, 1947, gage height, 31.95 ft (9.738 m), present datum, from rating curve extended above 2,500 ft³/s (70.8 m³/s) on basis of contracted-opening measurement of peak flow; minimum daily, 0.60 ft³/s (0.017 m³/s) Sept. 22, 1961.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1, 1935, reached a stage of 33.45 ft (10.196 m), from floodmarks, discharge, 45,000 ft³/s (1,270 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 188 ft³/s (5.32 m³/s) Aug. 27, gage height, 10.67 ft (3.252 m); minimum daily, 3.0 ft³/s (0.085 m³/s) May 3, 25, 26, June 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	4.4	3.9	4.5	3.8	3.8	5.4	3.8	3.9	82	106	114
2	4.5	4.4	4.0	4.3	3.8	3.9	4.5	3.9	4.2	76	100	78
3	4.3	4.3	3.9	4.3	3.9	3.9	4.4	3.0	3.7	58	99	55
4	4.7	4.3	4.2	4.3	3.7	4.0	4.2	3.3	3.7	56	108	42
5	4.7	4.4	4.2	4.2	3.8	3.9	4.3	4.0	3.7	56	143	38
6	4.4	4.4	4.2	3.9	3.8	3.9	4.3	3.5	3.5	54	148	37
7	4.4	4.7	4.2	4.3	4.0	3.9	4.0	3.6	3.5	62	135	37
8	4.2	4.7	4.3	4.3	3.8	3.7	4.0	3.9	3.3	118	135	33
9	4.2	4.7	4.1	4.2	3.8	3.7	4.0	3.8	3.0	159	135	26
10	4.2	4.4	4.2	4.2	3.9	3.7	4.0	3.6	13	163	135	13
11	4.0	4.4	4.1	4.0	3.8	3.7	4.0	3.5	74	152	105	5.3
12	4.2	4.4	4.1	4.1	3.8	3.8	4.0	3.9	44	143	35	4.9
13	4.1	4.2	4.1	4.1	3.8	3.7	4.0	3.9	41	153	25	3.9
14	4.2	4.2	4.1	4.0	3.8	3.8	4.0	3.8	41	162	25	3.8
15	4.2	4.2	4.1	3.9	3.9	3.9	4.0	3.8	39	158	25	4.4
16	4.1	4.2	4.0	3.9	3.8	3.8	4.0	5.4	37	154	25	4.7
17	4.1	4.2	4.1	3.9	3.9	3.7	4.0	4.3	21	149	25	4.4
18	4.2	4.2	4.2	3.9	3.9	3.8	4.2	4.3	6.3	130	25	4.4
19	4.4	4.2	4.3	3.9	7.7	3.8	4.1	4.0	4.9	114	25	4.3
20	4.4	4.2	4.3	3.9	5.0	3.9	4.0	3.8	4.0	114	25	4.4
21	4.4	4.2	4.3	3.9	4.3	3.9	4.0	3.6	3.9	114	25	4.2
22	4.4	4.2	4.3	3.8	3.9	3.9	3.9	3.1	3.9	113	25	4.2
23	4.4	4.2	4.5	3.9	3.9	3.9	3.8	3.1	3.3	112	28	4.2
24	4.4	4.2	4.2	3.9	3.9	3.7	3.8	3.8	15	122	80	4.0
25	4.4	4.2	4.3	3.9	3.9	3.7	3.8	3.0	26	122	141	3.9
26	4.4	4.0	4.3	4.1	3.9	3.9	3.8	3.0	26	112	184	4.0
27	4.4	3.9	4.3	4.0	3.9	4.1	3.7	3.1	26	111	171	4.0
28	4.4	3.8	4.5	4.1	3.9	4.6	3.8	3.6	26	107	157	4.0
29	4.4	3.9	4.4	4.1	3.9	4.5	3.9	3.7	32	119	134	3.9
30	4.5	3.9	4.5	4.0	---	4.1	3.8	3.4	63	119	136	3.8
31	4.7	---	4.4	3.8	---	4.1	---	4.3	---	114	137	---
TOTAL	134.8	127.6	130.6	125.6	117.2	120.7	121.7	114.8	582.8	3578	2802	557.7
MEAN	4.35	4.25	4.21	4.05	4.04	3.89	4.06	3.70	19.4	115	90.4	18.6
MAX	4.7	4.7	4.5	4.5	7.7	4.6	5.4	5.4	74	163	184	114
MIN	4.0	3.8	3.9	3.8	3.7	3.7	3.7	3.0	3.0	54	25	3.8
AC-FT	267	253	259	249	232	239	241	228	1160	7100	5560	1110

CAL YR 1979 TOTAL 5788.6 MEAN 15.9 MAX 134 MIN 2.9 AC-FT 11480
WTR YR 1980 TOTAL 8513.5 MEAN 23.3 MAX 184 MIN 3.0 AC-FT 16890

06838000 RED WILLOW CREEK NEAR RED WILLOW, NE

LOCATION.--Lat 40°14'10", long 100°30'00", in NE1/4NE1/4 sec.17, T.3 N., R.28 W., Red Willow County, Hydrologic Unit 10250007, on left (revised) bank near downstream side of bridge on U.S. Highways 6 and 34, 0.8 mi (1.3 km) north of Red Willow and 2.5 mi (4.0 km) upstream from mouth.

DRAINAGE AREA.--830 mi² (2,150 km²), approximately, of which about 410 mi² (1,060 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--September 1939 to current year.

REVISED RECORDS.--WSP 1510: 1945(M). WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,398.64 ft (731.105 m) National Geodetic Vertical Datum of 1929. Prior to May 26, 1945, nonrecording gage at bridge 1.2 mi (1.9 km) upstream at datum 11.16 ft (3.402 m) higher, May 26, 1945 to Aug. 2, 1974, water-stage recorder at present site and datum, and Aug. 3, 1974 to June 27, 1980, on right bank at downstream side of bridge, present datum.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow affected by irrigation development above station, since Sept. 5, 1961, by storage in Hugh Butler Lake (station 06837390), and since June 1963 by Red Willow Canal which diverts 4.5 mi (7.2 km) above station for irrigation of about 4,150 acres (16.8 km²).

AVERAGE DISCHARGE.--41 years, 29.9 ft³/s (0.847 m³/s), 21,660 acre-ft/yr (26.7 hm³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,000 ft³/s (850 m³/s) June 22, 1947, gage height, 18.36 ft (5.596 m), from rating curve extended above 6,800 ft³/s (193 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 0.33 ft³/s (0.009 m³/s) Sept. 8, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 269 ft³/s (7.62 m³/s) Aug. 10, gage height, 7.71 ft (2.350 m); minimum daily, 1.8 ft³/s (0.051 m³/s) May 14, 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	8.8	8.0	9.0	7.4	7.0	12	8.5	7.6	33	48	66
2	5.9	8.2	8.8	10	8.6	7.6	12	8.5	8.1	41	47	41
3	5.9	8.1	9.4	10	9.0	8.2	11	8.7	6.9	32	47	26
4	5.9	8.0	10	9.2	10	8.6	10	7.8	17	30	47	16
5	6.2	8.2	11	8.1	11	8.8	10	7.9	9.1	29	61	7.4
6	6.2	7.9	10	7.8	12	9.0	10	8.3	8.2	27	65	7.4
7	6.1	7.8	9.0	7.8	10	9.1	9.9	7.8	8.1	25	70	7.3
8	6.1	7.9	8.6	7.8	8.8	9.0	9.7	7.8	7.6	32	75	10
9	6.0	7.8	8.8	7.6	8.0	9.0	9.6	8.2	7.4	54	75	13
10	6.0	7.7	8.8	8.0	8.4	9.1	9.8	7.9	6.5	64	85	9.0
11	6.5	7.4	8.5	8.0	8.4	9.0	9.8	7.2	12	49	134	7.4
12	6.4	7.5	6.4	8.4	8.4	9.0	9.8	22	26	34	38	5.5
13	6.3	7.4	7.0	9.0	8.2	9.0	9.6	8.7	11	34	13	5.0
14	6.4	7.3	9.2	9.0	8.0	9.0	9.8	1.8	11	48	20	4.4
15	6.5	7.3	11	10	8.0	9.3	9.4	1.8	10	58	21	4.9
16	6.6	7.6	13	8.8	7.6	9.2	3.1	9.4	12	57	19	5.2
17	6.6	7.8	14	8.7	8.5	9.0	3.7	9.4	14	48	18	5.2
18	6.7	7.9	19	8.6	10	9.2	8.4	8.4	12	53	16	5.1
19	6.7	7.7	15	8.8	12	9.2	8.9	8.4	12	34	15	4.8
20	6.8	8.1	14	8.8	12	9.0	9.1	8.0	7.6	32	15	4.6
21	6.8	8.6	12	8.4	11	9.2	22	7.8	6.5	27	12	4.6
22	7.6	7.6	11	8.6	11	9.3	10	7.5	11	30	7.2	4.6
23	7.6	7.0	10	8.8	10	9.3	9.8	7.1	6.8	37	6.3	4.7
24	7.6	7.4	8.9	9.0	10	9.2	9.7	7.1	6.1	37	19	4.7
25	7.6	8.2	8.1	8.4	9.0	9.3	9.3	7.4	6.5	48	57	4.7
26	7.8	8.1	8.0	8.0	8.9	9.7	2.6	6.8	10	43	109	14
27	7.8	8.1	7.8	7.2	9.0	9.8	2.8	6.8	18	43	102	5.8
28	7.8	7.6	8.0	6.8	8.9	12	8.0	6.9	18	45	75	5.4
29	8.3	7.2	8.2	6.8	7.8	12	10	7.1	20	45	74	5.3
30	9.1	7.4	8.0	7.0	---	10	7.1	6.9	29	48	59	5.1
31	9.7	---	8.4	7.0	---	10	---	6.9	---	49	65	---
TOTAL	213.1	233.6	307.9	259.6	269.9	286.1	276.9	244.8	346.0	1266	1514.5	314.1
MEAN	6.87	7.79	9.93	8.37	9.31	9.23	9.23	7.90	11.5	40.8	48.9	10.5
MAX	9.7	8.8	19	10	12	12	22	22	29	64	134	66
MIN	5.6	7.0	6.4	6.8	7.4	7.0	2.6	1.8	6.1	25	6.3	4.4
AC-FT	423	463	611	515	535	567	549	486	686	2510	3000	623

CAL YR 1979 TOTAL 4227.34 MEAN 11.6 MAX 390 MIN .54 AC-FT 8380
WTR YR 1980 TOTAL 5532.50 MEAN 15.1 MAX 134 MIN 1.8 AC-FT 10970

06840000 FOX CREEK AT CURTIS, NE

LOCATION.--Lat 40°38'00", long 100°29'20", in SE1/4NW1/4 sec.27, T.8 N., R.28 W., Frontier County, Hydrologic Unit 10250008, on left bank 15 ft (5 m) upstream from bridge on State Highway 23, 0.5 mi (0.8 km) upstream from mouth, and 1 mi (2 km) east of Curtis.

DRAINAGE AREA.--74 mi^2 (190 km^2), approximately.

PERIOD OF RECORD.--March 1951 to September 1958. Annual maximums, water years 1960-70. October 1977 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,519.58 ft (767.968 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good prior to July 2, poor thereafter.

AVERAGE DISCHARGE.--10 years (1952-58, 1978-80), 7.36 ft^3/s (0.208 m^3/s), 5,330 acre-ft/yr (6.57 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,340 ft^3/s (94.6 m^3/s) May 31, 1951, gage height, 15.35 ft (4.679 m); minimum daily, 0.71 ft^3/s (0.020 m^3/s) July 26, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 27.3 ft (8.32 m) June 21, 1947, from floodmark (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 317 ft^3/s (8.98 m^3/s) Feb. 20, gage height, 8.27 ft (2.521 m); minimum daily, 0.71 ft^3/s (0.020 m^3/s) July 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	5.3	5.8	6.2	6.0	6.8	9.5	6.8	6.3	5.1	2.1	2.0
2	3.8	4.8	5.7	5.9	6.2	7.4	9.3	6.8	6.9	5.0	1.9	1.9
3	3.8	5.0	6.1	5.8	6.2	7.3	9.0	7.0	6.8	5.1	1.9	1.9
4	3.8	5.1	6.2	5.7	6.2	7.2	8.4	6.9	6.3	4.9	1.7	2.0
5	3.8	5.3	6.4	5.7	6.7	6.7	8.1	6.8	5.9	4.7	2.5	2.1
6	3.8	5.2	6.4	5.5	7.3	6.9	8.0	6.7	5.8	4.2	2.0	2.2
7	3.9	5.2	6.3	5.5	6.4	7.0	7.7	6.8	5.7	4.0	1.2	2.1
8	4.7	5.3	6.2	5.8	5.9	7.0	7.4	6.7	5.5	4.0	1.2	2.4
9	5.4	5.3	6.2	5.6	6.4	7.3	7.1	6.8	5.7	3.6	3.0	2.8
10	5.7	5.1	6.3	5.8	6.4	7.0	7.2	7.1	5.7	3.4	3.8	2.8
11	6.2	5.2	6.1	5.9	5.9	6.8	7.2	6.6	5.6	3.2	3.6	2.8
12	5.5	5.1	6.0	5.8	6.6	6.7	7.0	6.8	6.2	3.6	4.0	2.9
13	5.5	5.2	5.9	6.2	6.6	6.6	6.9	7.0	6.2	3.4	4.3	2.9
14	5.5	5.3	6.0	6.2	6.3	6.5	6.9	6.9	5.9	3.3	4.0	2.9
15	5.0	5.3	6.0	6.2	5.7	6.6	6.8	6.8	5.7	3.4	5.9	3.0
16	5.0	5.4	5.5	6.0	7.0	6.4	6.8	7.9	5.9	3.0	7.9	3.0
17	4.8	5.4	6.2	6.0	7.1	6.3	6.9	8.0	6.0	2.6	3.3	2.9
18	4.8	5.6	6.2	5.9	6.9	6.2	6.8	7.1	6.1	2.4	3.2	2.9
19	4.8	5.7	6.3	5.9	70	6.3	6.8	6.9	6.2	2.4	3.5	2.8
20	4.8	5.9	6.2	6.0	138	6.3	6.9	6.7	6.2	2.2	3.4	2.7
21	5.0	6.3	6.3	6.4	123	6.2	6.8	6.5	6.1	1.5	3.1	2.6
22	5.7	6.4	6.3	6.1	22	6.4	6.9	6.5	7.1	1.8	3.1	2.6
23	5.0	6.4	6.1	6.2	9.2	6.4	6.8	6.4	6.2	1.4	2.8	2.5
24	4.8	6.1	6.1	6.2	8.5	6.4	6.7	6.3	5.7	.89	2.5	2.4
25	5.0	5.8	6.1	6.1	8.3	6.5	6.9	6.4	5.6	.86	2.8	2.3
26	5.4	5.8	6.2	5.9	7.2	6.7	6.8	6.3	5.5	.71	2.8	2.2
27	5.2	5.8	6.3	6.0	7.3	6.9	7.0	6.2	5.5	.88	2.9	2.1
28	5.1	5.2	6.6	5.7	8.0	8.0	7.0	6.1	5.3	1.4	2.8	2.1
29	5.1	5.2	6.1	5.5	7.4	7.9	7.2	6.0	5.2	1.9	2.7	2.1
30	5.0	6.0	6.3	5.7	---	7.5	6.9	5.9	5.3	1.1	2.5	2.1
31	5.9	---	6.5	5.9	---	7.7	---	5.9	---	2.0	2.2	---
TOTAL	151.9	164.7	190.9	183.3	524.7	211.9	219.7	207.6	178.1	87.94	94.6	74.0
MEAN	4.90	5.49	6.16	5.91	18.1	6.84	7.32	6.70	5.94	2.84	3.05	2.47
MAX	6.2	6.4	6.6	6.4	138	8.0	9.5	8.0	7.1	5.1	7.9	3.0
MIN	3.8	4.8	5.5	5.5	5.7	6.2	6.7	5.9	5.2	.71	1.2	1.9
AC-FT	301	327	379	364	1040	420	436	412	353	174	188	147

CAL YR 1979 TOTAL 2463.30 MEAN 6.75 MAX 142 MIN 2.3 AC-FT 4890
WTR YR 1980 TOTAL 2289.34 MEAN 6.26 MAX 138 MIN .71 AC-FT 4540

06841000 MEDICINE CREEK ABOVE HARRY STRUNK LAKE, NE

LOCATION.--Lat 40°30'10", long 100°19'20", in SW1/4 sec.7, T.6 N., R.26 W., Frontier County, Hydrologic Unit 10250008, on right bank 0.3 mi (0.5 km) downstream from top of Harry Strunk Lake flood-control pool, 2.5 mi (4.0 km) upstream from top of irrigation pool, 3.8 mi (6.1 km) southeast of Stockville, and 13.5 mi (21.7 km) upstream from Medicine Creek Dam.

DRAINAGE AREA.--770 mi² (1,990 km²), approximately, of which about 530 mi² (1,370 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--January 1950 to current year. Prior to October 1950, published as "above Medicine Creek Reservoir."

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Concrete control since November 1950. Datum of gage is 2,380.94 ft (725.711 m) National Geodetic Vertical Datum of 1929 (Water and Power Resources Service bench mark).

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation development above station.

AVERAGE DISCHARGE.--30 years, 67.3 ft³/s (1.906 m³/s), 48,760 acre-ft/yr (60.1 hm³/yr); median of yearly mean discharges, 59 ft³/s (1.671 m³/s), 42,700 acre-ft/yr (52.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,600 ft³/s (329 m³/s) June 21, 1967, gage height, 20.05 ft (6.111 m); minimum daily, 9.1 ft³/s (0.26 m³/s) Aug. 9, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1874, 24.4 ft (7.44 m) June 22, 1947, from floodmark (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about 1,000 ft³/s (28.3 m³/s) Feb. 21, gage height, 12.77 ft (3.892 m), ice jam, no peak above base of 1,200 ft³/s (34.0 m³/s); minimum daily, 9.1 ft³/s (0.26 m³/s) Aug. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	55	50	52	48	70	82	55	45	30	14	22
2	34	54	60	54	50	80	98	55	46	29	15	22
3	34	50	65	54	50	85	101	55	50	29	14	22
4	36	49	60	54	52	78	100	54	51	26	13	23
5	36	49	56	54	52	74	96	54	48	23	12	22
6	36	51	56	53	54	71	93	53	45	23	13	22
7	38	53	59	45	56	70	88	53	43	23	11	22
8	39	52	59	45	60	71	82	52	41	21	9.7	21
9	38	51	57	48	65	72	77	52	41	25	9.1	26
10	39	50	56	48	62	71	71	54	40	26	11	26
11	40	49	54	50	58	70	67	53	39	25	11	28
12	47	49	57	55	54	69	63	54	42	20	13	30
13	46	49	56	60	50	67	61	54	42	21	12	29
14	43	49	59	65	48	66	61	55	42	20	15	30
15	44	49	57	56	45	72	60	54	40	20	22	30
16	45	49	50	57	47	70	61	61	39	20	39	30
17	44	50	45	56	60	65	60	67	39	18	36	30
18	45	51	48	54	85	64	58	71	40	19	34	30
19	45	51	50	55	140	57	58	67	44	19	29	29
20	46	53	56	54	500	51	57	62	46	17	27	28
21	45	58	64	54	650	55	56	57	46	15	24	28
22	47	58	64	56	362	59	56	54	57	14	22	27
23	51	52	55	55	197	59	57	51	72	14	19	26
24	50	54	53	54	145	59	56	49	49	15	17	27
25	49	56	52	55	120	57	55	48	42	16	17	27
26	47	55	52	45	96	58	55	48	39	16	16	26
27	46	56	53	40	89	59	55	46	37	17	18	26
28	45	53	54	40	87	68	55	46	34	16	21	27
29	46	45	56	42	85	72	56	46	34	17	22	28
30	47	47	56	42	---	72	56	44	32	16	21	27
31	50	---	52	47	---	72	---	43	---	15	21	---
TOTAL	1333	1547	1721	1599	3467	2083	2051	1667	1305	625	577.8	791
MEAN	43.0	51.6	55.5	51.6	120	67.2	68.4	53.8	43.5	20.2	18.6	26.4
MAX	51	58	65	65	650	85	101	71	72	30	39	30
MIN	34	45	45	40	45	51	55	43	32	14	9.1	21
AC-FT	2640	3070	3410	3170	6880	4130	4070	3310	2590	1240	1150	1570

CAL YR 1979 TOTAL 26893.0 MEAN 73.7 MAX 1260 MIN 33 AC-FT 53340
WTR YR 1980 TOTAL 18766.8 MEAN 51.3 MAX 650 MIN 9.1 AC-FT 37220

06842000 HARRY STRUNK LAKE NEAR CAMBRIDGE, NE

LOCATION.--Lat 40°22'40", long 100°13'00", in NE1/4 sec.25, T.5 N., R.26 W., Frontier County, Hydrologic Unit 10250008, near right bank in control house at outlet tube of Medicine Creek Dam on Medicine Creek, 7 mi (11 km) northwest of Cambridge.

DRAINAGE AREA.--880 mi² (2,280 km²), approximately, of which about 640 mi² (1,660 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--August 1949 to current year.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Aug. 18, 1960, nonrecording gage at present datum.

REMARKS.--Reservoir is formed by earthfill dam; storage began Aug. 8, 1949. Capacity, 32,230 acre-ft (39.7 hm³) between elevation 2,335.0 ft (712 m), sill of outlet gates, and 2,366.1 ft (721 m), top of storage pool and crest of slot in spillway. Top of flood-control pool and crest of main spillway at elevation 2,386.2 ft (727 m), capacity, 89,310 acre-ft (0.110 km³). Top of superstorage flood-control pool at elevation 2,400.0 ft (732 m), capacity, 147,400 acre-ft (0.182 km³). Maximum water-surface elevation, 2,408.9 ft (734 m), 196,000 acre-ft (0.242 km³). Dead storage, 4,910 acre-ft (6.05 hm³). Figures given herein represent total contents. Water used for irrigation in Frenchman-Cambridge irrigation project.

COOPERATION.--Capacity table furnished by Water and Power Resources Service.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 55,750 acre-ft (68.7 hm³) Mar. 23, 1960, elevation, 2,374.10 ft (723.626 m); minimum since operation of reservoir began, 7,840 acre-ft (9.67 hm³) Sept. 7, 1978, elevation, 2,340.39 ft (713.351 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 39,530 acre-ft (48.7 hm³) June 5, elevation, 2,367.36 ft (721.571 m); minimum observed, 11,230 acre-ft (13.8 hm³) Sept. 10, elevation, 2,345.30 ft (714.847 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

2,345	11,000	2,360	27,100
2,350	15,250	2,365	35,140
2,355	20,550	2,370	44,890

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35190	36500	36320	36550	36900	37760	37930	39100	39240	37910	20360	11810
2	35270	36480	36320	36550	36840	37610	38270	39120	39260	37530	19850	11630
3	35270	36460	36320	36590	36840	37500	38440	39100	39320	37440	19390	11560
4	35270	36460	36360	36550	36820	37330	38490	39120	39490	37290	18900	11480
5	35290	36460	36390	36550	36790	37140	38600	39140	39470	36970	18350	11450
6	35320	36450	36390	36570	36770	37010	38750	39120	39390	36640	17900	11420
7	35380	36460	36430	36540	36820	36840	38850	39080	39220	36360	17470	11360
8	35430	36450	36430	36500	36820	36680	38870	39080	39100	35720	16910	11300
9	35430	36430	36430	36480	36820	36540	38930	39060	39040	35090	16400	11250
10	35490	36430	36460	36500	36730	36450	39000	39080	39060	34170	15970	11310
11	35540	36450	36480	36520	36730	36390	39060	39060	39080	33450	15710	11370
12	35610	36390	36480	36480	36700	36320	39080	39100	39140	32890	15670	11440
13	35630	36390	36430	36540	36590	36270	39100	39080	39180	32220	15620	11470
14	35720	36370	36410	36540	36460	36270	39100	39080	39160	31520	15590	11550
15	35760	36370	36480	36570	36340	36270	39120	39160	39040	30800	15640	11630
16	35830	36340	36360	36590	36180	36300	39140	39350	38950	30090	15740	11660
17	35850	36340	36340	36590	36050	36250	39140	39370	38950	29430	15840	11700
18	35960	36360	36340	36630	36100	36210	39100	39370	38990	28780	15890	11760
19	36010	36370	36360	36660	36250	36230	39120	39390	38930	28120	15930	11840
20	36100	36430	36370	36660	36990	36190	39120	39450	38930	27470	15850	11860
21	36210	36500	36430	36680	38080	36190	39120	39430	38950	26900	15690	11890
22	36190	36520	36450	36680	38850	36320	39120	39430	39060	26290	15450	11920
23	36280	36520	36480	36750	38910	36340	39120	39410	39160	25580	15120	11960
24	36360	36520	36480	36770	38850	36410	39120	39370	39180	24960	14830	12000
25	36370	36500	36480	36790	38700	36500	39120	39320	39260	24230	14360	12030
26	36460	36500	36480	36880	38530	36640	39080	39300	39080	23620	13840	12060
27	36450	36500	36480	36910	38360	36930	39080	39280	38970	23080	13340	12110
28	36460	36480	36480	36880	38170	37230	39120	39280	38750	22570	12930	12140
29	36540	36340	36520	36900	37980	37420	39060	39300	38400	22000	12590	12200
30	36630	36320	36520	36900	---	37510	39100	39240	38150	21370	12290	12250
31	36540	---	36520	36900	---	37700	---	39300	---	20850	12030	---
MAX	36630	36520	36520	36910	38910	37760	39140	39450	39490	37910	20360	12250
MIN	35190	36320	36320	36480	36050	36190	37930	39060	38150	20850	12030	11250
†	2365.77	2365.65	2365.76	2365.57	2366.55	2366.40	2367.14	2367.24	2366.64	2355.25	2346.31	2346.59
‡	+1350	-220	+200	+380	+1080	-280	+1400	+200	-1150	-17300	-8820	+220

CAL YR 1979 MAX 41080 MIN 15480 +21100
WTR YR 1980 MAX 39490 MIN 11250 -22940

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

06842500 MEDICINE CREEK BELOW HARRY STRUNK LAKE, NE

LOCATION.--Lat 40°22'20", long 100°13'20", at center of sec.25, T.5 N., R.26 W., Frontier County, Hydrologic Unit 10250008, on right bank 0.5 mi (0.8 km) downstream from Medicine Creek Dam and 6.5 mi (10.5 km) northwest of Cambridge.

DRAINAGE AREA.--880 mi² (2,280 km²), approximately, of which about 640 mi² (1,660 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1949 to current year. Prior to October 1950, published as "below Medicine Creek Dam." Monthly discharge only for some periods, published in WSP 1730.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Concrete control since August 1950. Datum of gage is 2,295.26 ft (699.595 m) National Geodetic Vertical Datum of 1929 (Water and Power Resources Service bench mark). Prior to Apr. 24, 1950, nonrecording gage at site 0.5 mi (0.8 km) upstream at different datum.

REMARKS.--Records good. Flow regulated by Harry Strunk Lake (station 06842000).

AVERAGE DISCHARGE.--31 years, 63.4 ft³/s (1.795 m³/s), 45,930 acre-ft/yr (56.6 hm³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,300 ft³/s (36.8 m³/s) Mar. 23, 1960, gage height, 5.97 ft (1.820 m); minimum daily, 0.10 ft³/s (0.003 m³/s) Nov. 13, 1952, Sept. 19, 1963, Sept. 27-29, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 356 ft³/s (10.1 m³/s) July 9, 10, 13, gage height, 3.07 ft (0.936 m); minimum daily, 0.35 ft³/s (0.010 m³/s) Sept. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.96	60	46	47	56	160	14	45	42	154	236	131
2	1.0	51	46	47	68	157	18	45	45	148	228	103
3	.81	51	46	47	68	153	29	45	43	72	230	76
4	.85	51	46	47	68	153	31	45	43	86	230	53
5	.91	51	46	47	68	151	34	45	44	185	237	45
6	.91	51	46	47	68	150	38	46	44	184	232	45
7	.95	49	46	47	68	150	40	46	44	211	228	45
8	1.1	49	46	48	68	150	43	45	41	284	239	45
9	.93	50	46	48	68	150	43	44	41	327	245	45
10	1.0	51	46	46	68	124	45	45	39	339	242	20
11	1.1	51	47	46	68	108	46	44	38	333	111	.87
12	1.1	51	47	46	68	107	46	44	40	326	2.3	.80
13	1.1	51	46	46	98	86	46	45	40	330	41	.69
14	1.1	51	46	46	113	72	46	44	39	344	79	.71
15	1.2	51	46	46	113	72	46	43	39	334	34	.63
16	1.5	51	46	46	113	72	50	51	38	330	1.2	.61
17	1.8	51	46	46	113	72	50	52	34	328	1.0	.63
18	1.9	51	46	46	46	72	46	52	35	312	.95	.50
19	1.4	49	46	46	2.9	61	46	52	35	304	16	.52
20	1.5	50	47	46	2.9	56	48	52	36	301	37	.48
21	1.5	50	47	46	65	34	47	52	35	285	83	.55
22	1.3	49	46	46	174	28	48	50	38	278	147	.51
23	1.4	49	46	46	185	27	48	50	38	288	164	.53
24	1.6	49	46	46	184	11	48	49	39	304	175	.46
25	14	47	46	46	182	5.3	48	48	39	297	223	.47
26	22	47	47	46	177	5.3	45	48	39	290	274	.49
27	25	48	47	46	172	5.7	45	43	71	289	255	.44
28	27	48	48	46	168	6.4	45	42	96	279	221	.44
29	31	46	47	46	164	6.7	45	44	113	266	182	.35
30	43	46	47	46	---	7.2	45	43	143	266	167	.38
31	58	---	47	46	---	8.8	---	42	---	261	162	---
TOTAL	248.92	1500	1437	1437	2876.8	2421.4	1269	1441	1451	8335	4723.45	619.06
MEAN	8.03	50.0	46.4	46.4	99.2	78.1	42.3	46.5	48.4	269	152	20.6
MAX	58	60	48	48	185	160	50	52	143	344	274	131
MIN	.81	46	46	46	2.9	5.3	14	42	34	72	.95	.35
AC-FT	494	2980	2850	2850	5710	4800	2520	2860	2880	16530	9370	1230

CAL YR 1979 TOTAL 11546.72 MEAN 31.6 MAX 342 MIN .54 AC-FT 22900
WTR YR 1980 TOTAL 27759.63 MEAN 75.8 MAX 344 MIN .35 AC-FT 55060

06843500 REPUBLICAN RIVER AT CAMBRIDGE, NE

LOCATION.--Lat 40°17'05", long 100°08'35", in NW1/4SE1/4 sec.28, T.4 N., R.25 W., Furnas County, Hydrologic Unit 10250004, on left bank 400 ft (122 m) south of U.S. Highways 6 and 34, 0.5 mi (0.8 km) downstream from Medicine Creek, 1 mi (2 km) east of Cambridge, and 1.3 mi (2.1 km) upstream from Cambridge diversion dam.

DRAINAGE AREA.--14,520 mi² (37,600 km²), approximately, of which about 7,810 mi² (20,200 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--September 1945 to current year.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,239.07 ft (682.469 m) National Geodetic Vertical Datum of 1929. Prior to July 13, 1948, nonrecording gage at site 150 ft (46 m) upstream at same datum and July 13, 1948, to Sept. 25, 1950, at present site and datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation development above station and since 1949 by regulation from upstream reservoirs.

AVERAGE DISCHARGE.--35 years, 316 ft³/s (8.949 m³/s), 228,900 acre-ft/yr (0.282 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 160,000 ft³/s (4,530 m³/s) June 22, 1947, gage height, 16.7 ft (5.09 m), from floodmarks, from rating curve extended above 12,000 ft³/s (340 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 0.07 ft³/s (0.002 m³/s) Sept. 27, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1826, 17.6 ft (5.36 m) May 31 to June 1, 1935, from information by local resident, discharge, about 280,000 ft³/s (7,930 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,360 ft³/s (38.5 m³/s) Aug. 11, gage height, 6.13 ft (1.868 m); minimum daily, 19 ft³/s (0.54 m³/s) Sept. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	190	175	161	100	280	297	172	114	245	287	197
2	37	163	200	171	115	282	388	179	431	305	263	185
3	37	156	205	170	135	355	380	176	200	280	252	145
4	32	155	208	181	155	405	369	167	191	313	253	106
5	39	154	205	180	190	349	342	160	160	306	262	85
6	42	152	182	178	230	332	333	158	133	287	270	95
7	42	150	175	135	250	331	320	155	127	289	255	84
8	43	148	170	100	240	331	316	154	120	324	251	71
9	42	149	164	110	230	334	312	153	113	372	269	76
10	44	148	161	150	220	322	318	148	108	404	281	68
11	51	147	162	189	220	285	326	145	102	392	959	38
12	51	147	156	192	220	279	328	144	122	371	850	31
13	48	146	145	208	200	270	315	158	114	356	286	37
14	54	146	140	210	150	236	302	145	97	368	249	43
15	58	145	130	221	100	229	283	134	89	383	207	38
16	61	143	135	211	95	216	272	176	91	376	166	31
17	60	144	140	176	95	207	256	213	97	371	144	33
18	63	146	155	167	125	206	246	198	244	355	116	30
19	66	150	155	162	155	205	241	184	176	355	103	28
20	69	156	175	173	190	187	241	177	150	338	114	26
21	72	169	217	171	300	178	241	169	131	331	132	22
22	79	169	213	174	733	156	250	155	140	314	201	21
23	82	162	227	167	704	157	220	146	153	305	210	21
24	84	158	191	166	611	156	204	143	159	303	211	21
25	87	157	180	160	496	145	190	136	106	303	253	19
26	101	157	175	100	398	150	180	128	94	317	327	20
27	103	162	169	95	375	158	174	122	94	326	334	25
28	104	153	172	90	360	237	176	116	128	318	299	24
29	109	135	177	90	339	293	183	116	169	299	238	24
30	121	130	172	90	---	258	179	112	252	284	216	24
31	163	---	164	95	---	231	---	112	---	302	209	---
TOTAL	2081	4587	5395	4843	7731	7760	8182	4751	4405	10192	8467	1668
MEAN	67.1	153	174	156	267	250	273	153	147	329	273	55.6
MAX	163	190	227	221	733	405	388	213	431	404	959	197
MIN	32	130	130	90	95	145	174	112	89	245	103	19
AC-FT	4130	9100	10700	9610	15330	15390	16230	9420	8740	20220	16790	3310

CAL YR 1979 TOTAL 54418 MEAN 149 MAX 944 MIN 20 AC-FT 107900
WTR YR 1980 TOTAL 70062 MEAN 191 MAX 959 MIN 19 AC-FT 139000

06844000 MUDDY CREEK AT ARAPAHOE, NE

LOCATION.--Lat 40°18'20", long 99°54'40", in NW1/4NW1/4 sec.22, T.4 N., R.23 W., Furnas County, Hydrologic Unit 10250009, on left bank 10 ft (3 m) upstream from bridge on U.S. Highways 6 and 34, 0.2 mi (0.3 km) west of Arapahoe, and 1.5 mi (2.4 km) upstream from mouth.

DRAINAGE AREA.--246 mi^2 (637 km^2).

PERIOD OF RECORD.--December 1950 to September 1972, and October 1977 to current year.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,143.92 ft (653.467 m), National Geodetic Vertical Datum of 1929. December 1950 to Jan. 11, 1951, nonrecording gage, and Jan. 12, 1951, to Sept. 30, 1972, recording gage at site on left bank 20 ft (6 m) downstream from bridge at present datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation development above station and return flow from irrigated areas.

AVERAGE DISCHARGE.--24 years (1951-72, 1978-80), 15.1 ft^3/s (0.428 m^3/s), 10,940 acre-ft/yr (13.5 hm^3/yr); median of yearly mean discharges, 11 ft^3/s (0.312 m^3/s), 8,000 acre-ft/yr (9.86 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,280 ft^3/s (206 m^3/s) June 16, 1957, gage height, 24.62 ft (7.504 m); no flow Aug. 26 to Sept. 2, 1953, July 23, 29, Aug. 4, 1955.

EXTREMES OUTSIDE PERIOD OF RECORD.--A stage of 31 ft (9.4 m) occurred June 22, 1947, discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 697 ft^3/s (19.7 m^3/s) Feb. 21, gage height, 10.49 ft (3.197 m), no peak above base of 750 ft^3/s (21.2 m^3/s); maximum gage height, 10.79 ft (3.289 m) Feb. 21, ice jam; minimum daily discharge, 3.3 ft^3/s (0.093 m^3/s) July 31, Aug. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.3	7.8	6.8	7.5	7.0	16	13	7.6	6.9	5.5	3.7	8.1
2	6.3	7.3	6.8	7.7	7.0	14	14	7.0	27	32	3.5	8.7
3	5.6	7.0	7.3	7.5	7.3	14	15	7.4	10	18	3.3	8.0
4	5.3	8.2	7.6	7.2	7.3	14	13	7.0	7.6	8.1	4.2	5.4
5	5.6	8.2	7.3	7.2	7.2	14	11	7.3	6.9	7.0	5.0	5.0
6	5.2	8.9	7.1	6.6	7.6	12	10	6.6	6.3	6.2	4.2	5.0
7	5.3	8.9	7.2	6.0	7.4	12	9.5	7.0	6.1	6.2	4.1	5.0
8	5.5	8.6	6.6	5.0	7.2	12	9.4	6.6	5.8	6.6	3.7	4.8
9	5.3	6.3	7.0	6.0	7.0	14	9.2	7.0	5.8	5.4	3.6	5.4
10	5.1	6.0	7.3	7.2	6.8	15	8.9	7.0	5.8	5.0	4.4	5.8
11	6.1	6.3	6.6	6.9	6.6	16	8.9	7.0	5.5	5.0	6.0	5.8
12	6.1	6.0	6.3	6.9	6.3	14	8.9	7.0	7.0	5.3	5.8	5.8
13	6.1	6.0	6.0	7.1	5.9	12	8.9	7.4	7.1	4.8	5.0	5.6
14	5.9	5.8	6.0	7.6	5.8	11	8.5	6.6	6.3	4.8	4.8	9.4
15	6.0	5.8	5.6	7.7	5.8	10	8.5	6.6	6.1	5.4	4.8	7.1
16	6.7	5.8	5.0	7.6	5.8	10	8.3	8.6	5.9	6.3	5.2	6.5
17	7.3	6.6	5.3	6.9	5.8	10	7.9	11	6.0	6.3	5.5	6.3
18	7.5	6.3	6.6	7.4	6.1	9.5	8.0	9.2	6.0	6.6	5.5	5.7
19	7.6	6.3	7.4	6.4	6.6	9.1	7.6	8.3	6.2	5.9	5.3	5.0
20	7.6	6.4	7.4	6.2	8.2	8.9	7.6	7.5	7.0	6.0	5.1	4.8
21	7.2	7.5	7.3	6.2	290	8.9	7.3	7.1	6.8	6.2	5.3	5.0
22	7.3	7.2	8.5	6.2	272	8.9	7.3	6.9	7.0	6.2	5.7	4.8
23	7.5	7.0	8.1	6.9	128	8.9	6.9	6.6	7.6	7.9	7.2	4.3
24	7.0	7.3	7.9	7.6	65	8.9	7.2	6.6	13	8.6	6.9	4.1
25	7.0	7.5	7.3	6.6	64	8.6	6.9	6.9	23	6.9	6.9	4.2
26	6.6	6.9	7.3	6.3	51	9.7	6.9	6.9	5.5	7.3	8.1	4.3
27	6.4	7.7	7.6	6.0	37	10	6.8	6.6	5.4	8.0	7.0	4.3
28	6.7	7.5	7.6	6.0	25	15	6.9	6.6	8.1	5.0	7.3	4.1
29	6.2	6.9	7.6	6.4	19	18	6.6	6.5	7.9	3.9	7.2	4.3
30	7.5	7.2	7.6	6.6	---	16	7.2	6.1	7.2	3.5	8.6	4.5
31	9.1	---	7.7	7.0	---	12	---	6.5	---	3.3	8.2	---
TOTAL	199.9	211.2	217.7	210.4	1085.7	372.4	266.1	223.0	242.8	223.2	171.1	167.1
MEAN	6.45	7.04	7.02	6.79	37.4	12.0	8.87	7.19	8.09	7.20	5.52	5.57
MAX	9.1	8.9	8.5	7.7	290	18	15	11	27	32	8.6	9.4
MIN	5.1	5.8	5.0	5.0	5.8	8.6	6.6	6.1	5.4	3.3	3.3	4.1
AC-FT	397	419	432	417	2150	739	528	442	482	443	339	331

CAL YR 1979 TOTAL 6127.6 MEAN 16.8 MAX 745 MIN 3.6 AC-FT 12150
WTR YR 1980 TOTAL 3590.6 MEAN 9.81 MAX 290 MIN 3.3 AC-FT 7120

06844210 TURKEY CREEK AT EDISON, NE

LOCATION.--Lat 40°16'15", long 99°44'00", in the center of sec.31, T.4 N., R.21 W., Furnas County, Hydrologic Unit 10250009, on left bank 10 ft (3 m) downstream from bridge on State Highway 136, 2 mi (3 km) east of Edison and 5 mi (8 km) upstream from mouth.

DRAINAGE AREA.--74.9 mi² (194.0 km²).

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 2,090 ft (637 m), from topographic map.

REMARKS.--Records good except those for winter period, which are fair. Natural flow affected by pump irrigation development above station and by return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 430 ft³/s (12.2 m³/s) July 27, 1979, gage height, 9.76 ft (2.975 m); minimum daily, 0.74 ft³/s (0.021 m³/s) Sept. 9, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 262 ft³/s (7.42 m³/s) July 2, gage height, 7.95 ft (2.423 m); minimum daily, 1.1 ft³/s (0.031 m³/s) Sept. 5-8, 22, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	3.9	3.9	2.9	3.5	4.5	9.9	6.3	5.7	4.7	2.7	2.2
2	2.1	3.6	4.3	3.3	3.0	5.1	8.0	6.3	15	65	3.6	1.9
3	1.9	3.4	4.5	4.5	3.1	7.4	7.9	6.2	24	36	3.9	1.5
4	2.3	3.1	5.1	4.3	4.0	7.2	7.6	6.3	7.8	10	3.6	1.2
5	2.5	3.4	5.8	3.5	6.2	5.9	8.4	6.4	6.8	8.6	2.7	1.1
6	2.5	3.5	6.2	3.0	5.7	5.3	7.9	6.4	6.5	7.6	2.1	1.1
7	2.7	3.5	6.2	3.6	5.2	6.0	7.7	6.3	5.7	6.5	2.1	1.1
8	2.7	3.5	6.3	1.7	5.5	7.1	7.1	6.3	5.4	6.2	2.0	1.1
9	2.1	3.5	6.0	1.7	3.6	9.3	6.9	6.2	5.0	7.4	1.8	1.9
10	2.1	3.6	7.1	2.0	2.3	13	7.3	6.3	5.0	7.9	1.9	1.7
11	2.4	3.8	6.0	4.3	5.9	10	7.3	6.3	4.9	7.3	4.0	1.6
12	2.4	3.6	3.8	5.6	7.7	6.8	7.3	6.2	5.4	6.3	3.0	1.8
13	2.6	3.6	5.1	5.6	4.5	7.2	7.1	6.3	5.2	5.5	3.0	1.3
14	2.3	3.5	6.3	5.4	3.5	7.2	6.9	6.4	4.8	5.5	2.2	1.5
15	2.3	3.9	5.5	6.1	3.3	6.6	6.7	6.1	4.7	6.7	3.9	2.9
16	2.6	3.8	4.8	6.3	4.6	6.2	6.7	7.4	4.6	5.5	4.8	2.4
17	2.2	3.8	3.2	5.4	7.2	5.9	6.7	8.9	4.8	5.8	3.2	1.6
18	2.5	3.9	2.8	5.7	3.5	5.7	6.5	7.5	5.0	6.9	2.3	1.5
19	2.6	3.9	3.8	4.8	3.3	5.7	6.3	6.7	5.1	4.8	2.2	1.5
20	2.7	3.9	6.0	5.3	6.6	5.8	6.5	6.6	5.1	5.1	1.8	1.3
21	2.4	4.3	5.8	5.2	10	5.6	6.3	6.5	5.1	4.7	1.8	1.2
22	2.6	5.0	5.5	4.1	30	5.5	6.2	6.1	5.5	3.5	1.8	1.1
23	2.6	3.6	5.8	5.6	35	5.5	6.2	5.8	5.8	3.2	1.6	1.1
24	2.9	4.5	5.8	6.4	30	5.5	6.2	5.8	5.6	3.3	1.4	1.2
25	2.9	4.2	5.0	6.3	26	5.3	6.0	5.7	5.3	3.1	1.8	1.2
26	2.8	3.8	4.8	5.6	22	5.5	6.2	5.7	4.9	2.7	2.6	1.2
27	3.0	4.0	4.5	3.2	15	6.4	6.2	5.5	4.9	2.9	2.6	1.3
28	3.0	3.1	4.5	5.8	10	10	6.0	5.5	4.7	2.7	2.0	1.3
29	3.0	3.4	4.5	4.8	8.5	12	6.2	5.6	4.5	2.9	1.7	1.4
30	3.3	3.3	4.2	4.5	---	11	6.2	5.2	4.3	1.8	2.1	1.4
31	3.9	---	4.1	4.6	---	8.1	---	5.3	---	2.2	1.9	---
TOTAL	79.9	111.9	157.2	141.1	278.7	218.3	208.4	194.1	187.1	252.3	78.1	44.2
MEAN	2.58	3.73	5.07	4.55	9.61	7.04	6.95	6.26	6.24	8.14	2.52	1.47
MAX	3.9	5.0	7.1	6.4	35	13	9.9	8.9	24	65	4.8	2.9
MIN	1.9	3.1	2.8	1.7	2.3	4.5	6.0	5.2	4.3	1.8	1.4	1.1
AC-FT	158	222	312	280	553	433	413	385	371	500	155	88

CAL YR 1979 TOTAL 2399.1 MEAN 6.57 MAX 169 MIN 1.0 AC-FT 4760
WTR YR 1980 TOTAL 1951.3 MEAN 5.33 MAX 65 MIN 1.1 AC-FT 3870

06844500 REPUBLICAN RIVER NEAR ORLEANS, NE

LOCATION.--Lat 40°07'53", long 99°30'08", in NE1/4NE1/4 sec.19, T.2 N., R.19 W., Harlan County, Hydrologic Unit 10250009, on right bank 10 ft (5 m) downstream from bridge on State Highway 89, 200 ft (61 m) downstream from Burlington Northern Inc. bridge, 2 mi (3 km) west of Orleans, 2.8 mi (4.5 km) upstream from Sappa Creek, and 23 mi (37 km) upstream from Harlan County Dam.

DRAINAGE AREA.--15,640 mi² (40,500 km²), approximately, of which about 8,910 mi² (23,100 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1947 to current year.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,972.57 ft (601.239 m) National Geodetic Vertical Datum of 1929. Prior to June 2, 1948, nonrecording gage at present site and datum.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow affected by irrigation development above station and regulation by upstream reservoirs.

AVERAGE DISCHARGE.--33 years, 308 ft³/s (8.723 m³/s), 223,100 acre-ft/yr (0.275 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,600 ft³/s (1,150 m³/s) June 22, 1948, gage height, 11.25 ft (3.429 m), from rating curve extended above 29,000 ft³/s (821 m³/s); maximum gage height, 12.60 ft (3.840 m) Mar. 22, 1960, backwater from ice; no flow at times in 1952-57, 1963, 1978-80.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood since at least 1826 occurred June 1, 1935. Flood of June 23, 1947, reached a stage of 14.00 ft (4.267 m), from floodmark (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about 1,000 ft³/s (28.3 m³/s) Feb. 24, backwater from ice; maximum gage height, 6.22 ft (1.896 m) Feb. 23, ice jam; no flow Aug. 6-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	145	170	163	95	290	414	233	166	46	4.8	46
2	37	156	222	163	100	300	452	225	204	80	3.8	36
3	32	163	246	160	110	320	566	220	608	250	5.5	34
4	32	161	328	160	130	375	590	217	416	237	5.5	35
5	32	161	275	150	150	410	557	211	266	150	.86	31
6	34	162	230	140	200	480	508	205	232	134	.00	19
7	34	163	227	120	270	454	469	196	197	105	.00	11
8	36	164	207	100	290	446	440	195	158	84	.00	8.1
9	36	163	195	90	270	445	418	193	150	64	.00	15
10	40	165	192	120	270	417	413	190	148	42	.00	19
11	44	167	187	150	260	418	408	183	146	35	4.8	11
12	44	167	177	200	260	385	404	182	149	37	43	14
13	46	168	142	250	240	365	399	179	151	32	429	19
14	50	169	125	270	170	357	392	178	148	27	258	15
15	51	170	125	280	120	336	381	184	142	20	150	21
16	55	172	130	260	100	320	373	195	131	19	126	28
17	59	173	135	240	100	311	368	212	129	16	115	27
18	66	177	150	220	100	309	359	240	129	17	88	20
19	68	178	200	200	130	305	345	245	141	17	68	16
20	69	185	260	150	160	301	339	235	219	17	45	12
21	71	194	325	180	200	290	333	220	195	23	27	9.6
22	74	205	330	170	450	281	318	208	187	22	14	7.5
23	78	203	359	160	700	265	310	198	176	17	12	6.3
24	83	198	395	145	900	256	298	188	169	12	9.4	5.2
25	87	192	392	125	880	245	275	185	178	6.3	7.3	4.3
26	93	190	303	100	780	248	263	180	158	5.5	4.1	3.4
27	93	188	234	90	700	245	249	173	93	5.2	4.4	2.8
28	101	187	217	85	500	294	244	171	60	12	7.8	2.6
29	108	100	222	85	350	359	238	167	45	13	12	3.2
30	120	130	213	85	---	446	237	157	43	12	11	5.0
31	138	---	196	90	---	430	---	167	---	7.8	63	---
TOTAL	1948	5116	7109	4941	8985	10703	11360	6134	5334	1564.8	1519.26	487.0
MEAN	62.8	171	229	159	310	345	379	198	178	50.5	49.0	16.2
MAX	138	205	395	280	900	480	590	245	608	250	429	46
MIN	32	100	125	85	95	245	237	157	43	5.2	.00	2.6
AC-FT	3860	10150	14100	9800	17820	21230	22530	12170	10580	3100	3010	966

CAL YR 1979 TOTAL 61669.00 MEAN 169 MAX 1990 MIN 17 AC-FT 122300
WTR YR 1980 TOTAL 65201.06 MEAN 178 MAX 900 MIN .00 AC-FT 129300

06844500 REPUBLICAN RIVER NEAR ORLEANS, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1969 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	COLOR (PLAT-INUM COBALT UNITS) (00080)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)
OCT										
23...	0900	80	710	8.6	6.0	15	20	11.8	5.7	K110
NOV										
02...	1245	157	600	8.1	5.5	--	60	12.7	--	--
19...	0900	185	620	8.2	5.0	5	35	12.1	2.1	150
29...	1100	94	680	8.1	.0	--	25	14.1	--	--
DEC										
17...	0915	75	680	8.1	.0	10	6	13.7	5.2	K12
28...	1030	215	595	8.0	.0	--	45	12.9	--	--
JAN										
15...	0900	180	600	7.7	.5	10	10	12.1	2.7	<10
FEB										
25...	0900	800	330	7.5	.0	300	--	12.1	16	1000
MAR										
24...	0900	245	640	7.7	3.0	15	20	12.3	6.0	K31
APR										
21...	0815	335	710	7.7	18.0	10	45	8.6	8.1	K62
MAY										
20...	0915	245	685	7.8	16.0	20	55	8.0	3.8	150
JUN										
19...	1000	35	649	7.2	20.5	50	55	5.0	--	1200
JUL										
15...	0900	15	615	8.0	24.0	20	15	6.8	12	--
AUG										
26...	0900	5.0	650	7.8	21.5	15	8	7.2	10	--
SEP										
23...	0945	6.9	670	8.0	11.5	13	5	10.0	5.8	290

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
OCT										
23...	180	290	6	75	24	48	1.2	18	280	85
NOV										
02...	--	--	--	--	--	--	--	--	--	--
19...	K62	260	9	69	21	39	1.1	13	250	67
29...	--	--	--	--	--	--	--	--	--	--
DEC										
17...	K31	--	--	--	--	--	--	--	290	76
28...	--	--	--	--	--	--	--	--	--	--
JAN										
15...	K60	240	0	65	18	35	1.0	15	250	58
FEB										
25...	68000	120	9	33	8.9	15	.6	14	110	23
MAR										
24...	K75	290	27	77	23	42	1.1	1.4	260	71
APR										
21...	K100	260	1	70	21	41	1.1	17	260	73
MAY										
20...	210	260	23	69	22	42	1.1	16	240	82
JUN										
19...	K580	230	0	59	20	36	1.0	18	230	68
JUL										
15...	1000	230	0	58	21	36	1.0	18	240	67
AUG										
26...	920	230	0	59	21	42	1.2	19	240	73
SEP										
23...	300	240	0	58	24	43	1.2	16	250	74

K Results based on colony count outside the acceptable range (non-ideal colony count).

06844500 REPUBLICAN RIVER NEAR ORLEANS, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)
OCT 23...	23	.8	37	486	483	.66	105	.80	.81
NOV 02...	--	--	--	--	--	--	--	--	--
19...	18	.7	38	416	425	.57	208	2.0	2.0
29...	--	--	--	--	--	--	--	--	--
DEC 17...	21	.6	--	483	--	.66	97.8	1.8	1.8
28...	--	--	--	--	--	--	--	--	--
JAN 15...	16	.7	37	404	404	.55	196	1.9	1.9
FEB 25...	13	.4	22	216	201	.29	467	1.1	1.1
MAR 24...	19	.8	38	437	435	.59	289	1.4	1.4
APR 21...	19	.9	33	468	436	.64	423	1.1	1.1
MAY 20...	24	.6	33	438	438	.60	290	1.5	1.2
JUN 19...	20	.7	34	406	396	.55	38.4	.45	.44
JUL 15...	18	.8	39	423	403	.58	17.1	.12	.12
AUG 26...	21	.7	38	376	418	.51	5.08	.00	.00
SEP 23...	23	.5	34	453	423	.62	8.44	.02	.02

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
OCT 23...	.020	.73	.75	1.6	.250	.200	130	60	190
NOV 02...	--	--	--	--	--	--	--	--	--
19...	.110	.79	.90	2.9	.260	.160	120	20	30
29...	--	--	--	--	--	--	--	--	--
DEC 17...	.110	.57	.68	2.5	.210	.200	120	--	--
28...	--	--	--	--	--	--	--	--	--
JAN 15...	.040	.50	.54	2.4	.180	.150	100	20	6
FEB 25...	.220	2.8	3.0	4.1	.660	.370	110	270	20
MAR 24...	.040	.72	.76	2.2	.220	.150	120	20	7
APR 21...	.020	1.3	1.3	2.4	.320	.140	140	10	5
MAY 20...	.060	1.3	1.4	2.9	--	.170	130	20	7
JUN 19...	.110	1.7	1.8	2.3	.340	.100	130	30	4
JUL 15...	.040	1.1	1.1	1.2	--	.130	140	20	50
AUG 26...	.100	4.3	4.4	4.4	.260	.170	170	10	110
SEP 23...	.010	.73	.74	.76	.170	.120	200	10	70

06844500 REPUBLICAN RIVER NEAR ORLEANS, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)
OCT							
23...	0900	10	200	<1	0	8	2
APR							
21...	0815	10	200	1	0	1	0
JUL							
15...	0900	12	200	1	10	4	7

DATE	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY SUS- PENDED RECOV- ERABLE (UG/L AS HG) (71895)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
OCT						
23...	.0	.0	.0	2	0	6
APR						
21...	.0	.0	.0	3	0	<3
JUL						
15...	.1	.1	.0	1	0	10

06846500 BEAVER CREEK AT CEDAR BLUFFS, KS

LOCATION.--Lat 39°59'06", long 100°33'35", in NW1/4NE1/4 sec.10, T.1 S., R.29 W., Decatur County, Hydrologic Unit 10250014, on right bank at downstream side of bridge on U.S. Highway 83, 0.2 mi (0.3 km) north of Cedar Bluffs, 1.0 mi (1.6 km) south of Kansas-Nebraska State line, and at mi 107.4 (172.8 km).

DRAINAGE AREA.--1,618 mi² (4,191 km²), of which 294 mi² (761 km²) is probably noncontributing.

PERIOD OF RECORD.--October 1945 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1510: 1947, 1950-51.

GAGE.--Water-stage recorder. Datum of gage is 2,520.33 ft (768.197 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 19, 1971, at site 0.1 mi (0.2 km) upstream at same datum. Aug. 19, 1971, to July 12, 1972, at site 0.8 mi (1.3 km) downstream at datum 5.00 ft (1.524 m) lower.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--35 years, 18.9 ft³/s (0.535 m³/s), 13,690 acre-ft/yr (16.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,940 ft³/s (225 m³/s) June 11, 1960, gage height, 18.71 ft (5.703 m); no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in July 1944 reached a stage of 18.16 ft (5.535 m), from floodmark.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 139 ft³/s (3.94 m³/s) Sept. 1, gage height, 7.09 ft (2.161 m), no peak above base of 300 ft³/s (8.50 m³/s); no flow most days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	54
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.7
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.1
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.45
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.22
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.46	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.15	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.81	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.66	.00	.81	60.47
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.022	.000	.026	2.02
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.46	.00	.81	54
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	1.3	.00	1.6	120

CAL YR 1979 TOTAL 335.07 MEAN .92 MAX 234 MIN .00 AC-FT 665
WTR YR 1980 TOTAL 61.94 MEAN .17 MAX 54 MIN .00 AC-FT 123

06847000 BEAVER CREEK NEAR BEAVER CITY, NE

LOCATION.--Lat 40°07'12", long 99°53'35", in SW1/4SW1/4 sec.23, T.2 N., R.23 W., Furnas County, Hydrologic Unit 10250014, on left bank 400 ft (122 m) downstream from bridge on U.S. Highway 283, 3.5 mi (5.6 km) west of Beaver City, and at mi 24.7 (39.7 km).

DRAINAGE AREA.--1,950 mi^2 (5,050 km^2), approximately, of which about 1,650 mi^2 (4,270 km^2) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1936 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1340: 1937-38(M), 1939, 1940-41(M), 1943(M). WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,162.96 ft (659.270 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 13, 1947, nonrecording gages and Aug. 13, 1947, to Nov. 14, 1957, water-stage recorder, at site 400 ft (120 m) upstream at datum 2.0 ft (0.61 m) higher. Nov. 15, 1957, to Sept. 22, 1958, at site 3.6 mi (5.8 km) upstream at different datum.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--44 years, 24.8 ft^3/s (0.702 m^3/s), 17,970 acre-ft/yr (22.2 hm^3/yr); median of yearly mean discharges, 16 ft^3/s (0.453 m^3/s), 11,600 acre-ft/yr (14.3 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,800 ft^3/s (108 m^3/s) July 19, 1944, gage height, 13.8 ft (4.21 m), from floodmark, site and datum then in use; no flow at times in 1937-40, 1946, 1953-57, 1959, 1969-74, 1976, 1978-80.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 16 ft^3/s (0.45 m^3/s) June 2, gage height, 2.73 ft (0.832 m), no peak above base of 400 ft^3/s (11.3 m^3/s); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.21	.21	.45	.27	.65	2.4	2.5	1.3	.15	.02	.14
2	.05	.16	.23	.43	.30	.65	2.8	1.4	5.4	.36	.00	.04
3	.04	.15	.27	.40	.33	.70	3.0	1.3	3.9	.41	.00	.01
4	.04	.15	.34	.38	.33	.75	3.0	.95	3.3	.31	.00	.00
5	.04	.16	.40	.36	.33	.80	2.8	.85	1.2	.21	.00	.00
6	.04	.15	.44	.33	.35	.90	2.6	.82	.97	.21	.00	.00
7	.04	.17	.28	.33	.34	1.0	2.2	.91	.77	.19	.00	.00
8	.03	.17	.31	.31	.32	1.4	2.1	.87	.68	.17	.00	.01
9	.04	.17	.25	.30	.30	1.2	1.7	.90	.63	.17	.00	.27
10	.07	.19	.24	.32	.29	1.1	1.9	.89	.56	.17	.03	.01
11	.06	.17	.33	.35	.28	1.2	2.1	.84	.50	.15	.17	.00
12	.06	.16	.44	.38	.28	1.0	1.7	.83	3.6	.13	.03	.00
13	.10	.16	.48	.45	.29	.98	1.6	.84	2.9	.10	.00	.00
14	.08	.18	.54	.50	.30	.82	1.6	.81	1.7	.08	.00	.04
15	.08	.17	.52	.55	.30	.81	1.6	.84	1.1	.13	.10	.04
16	.12	.21	.44	.62	.28	1.2	1.5	1.4	.76	.14	.11	.02
17	.12	.17	.40	.60	.29	.51	1.5	1.6	.59	.10	.13	.04
18	.12	.16	.46	.55	.30	.81	1.5	1.3	.64	.10	.09	.03
19	.12	.15	.50	.50	.32	.68	1.5	1.0	.64	.11	.03	.02
20	.12	.14	.55	.46	.35	.74	1.5	1.0	.61	.11	.01	.00
21	.10	.14	.60	.48	.38	.71	1.6	.90	.62	.10	.01	.00
22	.10	.14	.70	.50	.43	.76	1.5	.97	1.4	.08	.01	.00
23	.10	.15	.80	.53	.48	.72	1.4	.90	1.0	.08	.00	.02
24	.10	.17	.92	.50	.56	.72	1.5	.97	.55	.07	.00	.02
25	.10	.20	.82	.45	.74	.74	1.7	.97	.47	.07	.00	.01
26	.10	.19	.53	.39	.95	1.1	1.4	.90	.41	.08	.00	.02
27	.10	.18	.44	.32	1.2	1.2	1.3	.90	.26	.09	.02	.02
28	.10	.18	.50	.27	1.4	2.0	1.2	.90	.17	.08	.04	.03
29	.15	.18	.50	.25	.95	2.4	1.3	.83	.19	.05	.01	.05
30	.21	.19	.48	.25	---	2.1	1.2	.97	.15	.02	.00	.03
31	.46	---	.45	.26	---	1.9	---	1.2	---	.03	.01	---
TOTAL	3.01	5.07	14.37	12.77	13.24	32.25	54.7	32.26	36.97	4.25	.82	.87
MEAN	.097	.17	.46	.41	.46	1.04	1.82	1.04	1.23	.14	.026	.029
MAX	.46	.21	.92	.62	1.4	2.4	3.0	2.5	5.4	.41	.17	.27
MIN	.02	.14	.21	.25	.27	.51	1.2	.81	.15	.02	.00	.00
AC-FT	6.0	10	29	25	26	64	108	64	73	8.4	1.6	1.7

CAL YR 1979 TOTAL 675.93 MEAN 1.85 MAX 185 MIN .00 AC-FT 1340
WTR YR 1980 TOTAL 210.58 MEAN .58 MAX 5.4 MIN .00 AC-FT 418

06847500 SAPPA CREEK NEAR STAMFORD, NE

LOCATION.--Lat 40°07'53", long 99°33'15", in NW1/4NW1/4 sec.23, T.2 N., R.20 W., Harlan County, Hydrologic Unit 10250011, on left bank 40 ft (12 m) south of Burlington Northern Inc. track, 500 ft (152 m) downstream from bridge on county highway, 2 mi (3 km) east of Stamford, and 5.5 mi (8.8 km) upstream from mouth.

DRAINAGE AREA.--3,740 mi² (9,690 km²), approximately, of which about 3,280 mi² (8,500 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--October 1945 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1919: 1960. WSP 2119: Drainage area. WDR NE-71-1: Calendar year totals.

GAGE.--Water-stage recorder. Datum of gage is 1,981.31 ft (603.903 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. Natural flow affected by irrigation development above station.

AVERAGE DISCHARGE.--35 years, 61.0 ft³/s (1.728 m³/s), 44,190 acre-ft/yr (54.5 hm³/yr); median of yearly mean discharges, 37 ft³/s (1.048 m³/s), 26,800 acre-ft/yr (33.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 43,400 ft³/s (1,230 m³/s) June 24, 1966, gage height, 22.13 ft (6.745 m), from floodmark, from contracted opening and flow-over-road measurement of peak flow; no flow at times in many years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 26 ft³/s (0.74 m³/s) Apr. 3, gage height, 4.57 ft (1.393 m), no peak above base of 1,000 ft³/s (28.3 m³/s); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	7.2	.14	2.3	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	7.5	.44	1.3	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	14	.23	2.2	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	12	.00	18	.00	.00	.00
5	.00	.00	.00	.00	.00	.68	13	.00	16	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	12	.00	11	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	12	.00	6.9	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	12	.00	4.8	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	11	.00	2.5	.00	.00	.00
10	.00	.00	.00	.00	.00	.59	8.6	.00	1.4	.00	.00	.00
11	.00	.00	.00	.00	.00	1.1	7.0	.00	1.0	.00	.49	.00
12	.00	.00	.00	.00	.00	1.0	7.6	.00	.82	.00	.00	.00
13	.00	.00	.00	.00	.00	1.1	7.7	.00	.36	.00	.00	.00
14	.00	.00	.00	.00	.00	1.1	6.4	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	2.9	5.1	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.62	4.9	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	1.0	4.7	.66	.25	.00	.00	.00
18	.00	.00	.00	.00	.00	1.1	4.2	.77	.80	.00	.00	.00
19	.00	.00	.00	.00	.00	.97	3.2	.33	1.3	.00	.00	.00
20	.00	.00	.00	.00	.00	.49	2.5	.01	.82	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	2.0	.50	.13	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	1.8	.69	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	1.6	.22	.00	.00	.00	.00
24	.00	.00	.00	.00	.11	.00	1.3	.09	.00	.00	.00	.00
25	.00	.00	.00	.00	.09	.00	1.2	.06	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.90	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.13	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.56	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	.00	3.3	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	3.3	.19	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	2.7	---	.81	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.20	22.51	171.72	4.95	71.88	.00	.49	.00
MEAN	.000	.000	.000	.000	.007	.73	5.72	.16	2.40	.000	.016	.000
MAX	.00	.00	.00	.00	.11	3.3	14	.81	18	.00	.49	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.4	45	341	9.8	143	.00	1.0	.00

CAL YR 1979 TOTAL 1443.39 MEAN 3.95 MAX 116 MIN .00 AC-FT 2860
WTR YR 1980 TOTAL 271.75 MEAN .74 MAX 18 MIN .00 AC-FT 539

06848500 PRAIRIE DOG CREEK NEAR WOODRUFF, KS

LOCATION.--Lat 39°59'09", long 99°28'39", in NW1/4NW1/4 sec.9, T.1 S., R.19 W., Phillips County, Hydrologic Unit 10250015, on left bank at downstream side of bridge on U.S. Highway 383, 1 mi (2 km) south of Kansas-Nebraska State line, 2.5 mi (4.0 km) west of Woodruff, and at mi 26.5 (42.6 km).

DRAINAGE AREA.--1,007 mi² (2,608 km²).

PERIOD OF RECORD.--October 1928 to September 1932, October 1944 to current year. Monthly discharge only for some periods, published in WSP 1310.

GAGE.--Water-stage recorder. Datum of gage is 2,016.20 ft (614.538 m) National Geodetic Vertical Datum of 1929. See WSP 1919 for history of changes prior to Oct. 7, 1955.

REMARKS.--Records good except those for November to March, which are poor. Flow regulated to some extent since 1964 by Norton Reservoir 48.4 mi (77.9 km) upstream and by irrigation development above station.

AVERAGE DISCHARGE.--40 years (water years 1929-32, 1945-80), 37.0 ft³/s (1.048 m³/s), 26,810 acre-ft/yr (33.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,000 ft³/s (425 m³/s) June 23, 1947, gage height, 21.04 ft (6.413 m), site and datum then in use, from rating curve extended above 6,500 ft³/s (184 m³/s) on basis of contracted-opening measurement of 11,300 ft³/s (320 m³/s); no flow at times in many years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 64 ft³/s (1.81 m³/s) Apr. 3, gage height, 4.89 ft (1.490 m); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	1.6	.02	.00	.04	.17	19	.92	6.0	.42	.00	.02
2	.00	.09	.01	.00	.05	.16	27	.98	5.9	.57	.00	.00
3	.00	.02	.01	.00	.06	.18	36	.98	5.1	.48	.00	.00
4	.00	.01	.01	.00	.07	.20	48	.98	8.7	.33	.00	.00
5	.00	.01	.01	.00	.08	.25	26	.98	5.5	.27	.00	.00
6	.00	.01	.01	.00	.09	.30	24	.98	2.5	.22	.00	.00
7	.00	.01	.01	.00	.08	.40	14	.95	1.4	.16	.00	.00
8	.00	.02	.06	.00	.07	1.0	8.0	.87	.94	.11	.00	.00
9	.00	.02	.07	.00	.07	.95	3.9	.87	.63	.09	.00	.00
10	.00	.03	.07	.00	.08	.85	3.4	.85	.54	.12	.00	.00
11	.00	.03	.06	.00	.08	.80	2.6	.92	.54	.10	.00	.00
12	.00	.04	.03	.00	.08	.75	2.4	.81	.63	.10	.00	.00
13	.00	.06	.02	.00	.07	.70	2.2	1.0	.66	.08	.00	.00
14	.00	.08	.02	.01	.07	.65	1.7	1.2	.77	.03	.00	.00
15	.00	.12	.02	.01	.06	.60	1.4	.98	.77	.07	.00	.00
16	.00	.16	.02	.02	.05	.56	1.3	1.4	2.3	3.6	.00	.00
17	.00	.25	.01	.02	.04	.52	1.3	2.0	2.6	1.7	.00	.00
18	.00	.27	.01	.03	.05	.50	1.2	2.1	1.6	3.6	.00	.00
19	.00	.21	.01	.03	.06	.45	1.2	2.1	.93	9.2	.00	.00
20	.00	.20	.01	.02	.07	.50	1.0	2.0	.71	7.0	.00	.00
21	.00	.19	.01	.03	.09	.50	1.1	2.1	.70	2.6	.00	.00
22	.00	.13	.01	.04	.11	.50	1.1	1.8	.85	.66	.00	.00
23	.00	.13	.02	.06	.20	.50	1.1	1.4	.90	.03	.00	.00
24	.00	.16	.03	.08	.30	.45	1.0	1.1	1.1	.00	.00	.00
25	.00	.14	.02	.07	.50	.45	1.0	1.0	1.0	.00	.00	.00
26	.00	.11	.02	.05	.25	.45	.92	.98	.76	.00	.00	.00
27	.00	.07	.01	.04	.23	.45	.88	.82	1.0	.00	.00	.00
28	.00	.06	.01	.04	.20	1.0	.83	.82	.91	.00	.00	.00
29	.00	.04	.01	.04	.19	4.2	.93	.71	.61	.00	.00	.00
30	.00	.03	.00	.04	---	7.2	.95	.63	.46	.00	.00	.00
31	.32	---	.00	.03	---	9.1	---	3.5	---	.00	.01	---
TOTAL	.32	4.30	.63	.66	3.39	35.29	235.41	38.73	57.01	31.54	.01	.02
MEAN	.010	.14	.020	.021	.12	1.14	7.85	1.25	1.90	1.02	.000	.001
MAX	.32	1.6	.07	.08	.50	9.1	48	3.5	8.7	9.2	.01	.02
MIN	.00	.01	.00	.00	.04	.16	.83	.63	.46	.00	.00	.00
AC-FT	.6	8.5	1.2	1.3	6.7	70	467	77	113	63	.02	.04

CAL YR 1979 TOTAL 1108.16 MEAN 3.04 MAX 126 MIN .00 AC-FT 2200
WTR YR 1980 TOTAL 407.31 MEAN 1.11 MAX 48 MIN .00 AC-FT 808

06849000 HARLAN COUNTY LAKE NEAR REPUBLICAN CITY, NE

LOCATION.--Lat 40°04'10", long 99°12'30", in sec.11, T.1 N., R.17 W., Harlan County, Hydrologic Unit 10250009, at left end of spillway on upstream side of Harlan County Dam on Republican River, 2 mi (3 km) southeast of Republican City and 8 mi (13 km) southeast of Alma.

DRAINAGE AREA.--20,750 mi² (53,700 km²), approximately, of which about 13,530 mi² (35,000 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--November 1952 to current year. Prior to October 1965 published as Harlan County Reservoir near Republican City.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS (REVISED).--Reservoir is formed by earthfill dam with gravity-type concrete spillway section; storage began Nov. 14, 1952. Capacity, 319,800 acre-ft (0.394 km³) between elevations 1,885.0 ft (575 m), sill of outlet gates, and 1,946.0 ft (593 m), top of storage pool. Top of flood-control pool at elevation 1,973.5 ft (602 m), capacity, 828,800 acre-ft (1.02 km³). Top of superstorage flood-control pool at elevation 1,975.5 ft (602 m), capacity, 875,600 acre-ft (1.08 km³). Figures given herein represent total contents. Water used for irrigation in the Bostwick irrigation project.

COOPERATION.--Capacity table furnished by Corps of Engineers (revised Oct. 1, 1974).

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 497,700 acre-ft (0.614 km³) Apr. 6, 1960, elevation, 1,955.67 ft (596.088 m); minimum since operation of reservoir began, 110,300 acre-ft (0.136 km³) Oct. 22 to Nov. 6, 1953, elevation, 1,922.00 ft (585.826 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 335,000 acre-ft (0.413 km³) June 15, elevation, 1,947.12 ft (593.482 m); minimum, 200,100 acre-ft (0.247 km³) Sept. 29, 30, elevation, 1,935.75 ft (590.017 m).

Capacity table (elevation, in feet,
and contents, in acre-feet)

1,935	192,800	1,945	306,400
1,940	244,700	1,950	376,000

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	227100	227200	232900	242100	251800	271500	296700	318800	330300	323900	250500	203900
2	227000	227200	233000	242300	252000	272100	299200	319400	331100	322600	247800	203700
3	226800	227500	233100	242600	252000	272800	300600	319700	331800	321100	245200	203700
4	226500	227600	233400	242800	252600	274000	301500	319900	332700	319900	242300	203400
5	226300	227700	233900	243000	252900	274700	303100	320300	333100	318200	239700	203400
6	226000	227800	234300	243500	253400	275800	304400	320700	333500	316400	236900	203400
7	225900	227900	234600	243600	254500	277100	305300	320900	333500	314400	234300	203200
8	225700	228200	234700	243600	254800	277800	305800	321000	333700	312500	231600	203100
9	225500	228200	235100	243700	255200	279000	306400	321000	333800	310700	229200	203000
10	225400	228300	235400	244000	255400	279800	307100	321100	334000	308400	227100	202800
11	225300	228500	235900	244200	255700	280300	307900	321400	334100	306200	225400	202800
12	225000	228600	236000	244300	255900	281500	308400	322000	334500	303600	223000	202700
13	224900	229000	236200	244700	256300	282000	309200	322000	334600	301000	221600	202500
14	224900	229200	236500	245100	256700	282600	310000	322100	334800	298800	219600	202500
15	224900	229300	236700	245500	257200	283400	310600	322600	334500	296600	218400	202500
16	224900	229500	236800	246100	257500	284100	312300	324400	334500	293900	217400	202600
17	224900	229600	237000	246500	257900	284600	312400	324900	334100	291100	216400	202300
18	224900	229700	237200	247100	258600	285300	312900	325200	333400	288400	215300	202200
19	225000	230200	237500	247800	259000	285900	313600	325600	333000	285900	214400	202000
20	224900	231000	237700	248100	259400	286100	314100	326300	332900	282900	213400	201700
21	224800	231600	237900	248600	259900	286300	314600	326400	332700	280200	212300	201700
22	224700	231800	238200	248800	260400	287300	315100	326700	333100	277500	211300	201400
23	224700	231800	238500	249200	261700	287500	315600	327000	332900	274400	210600	201100
24	224800	231800	238700	249400	263600	287800	316000	327400	332700	271700	209800	201100
25	224800	232200	238900	250200	265200	288300	316300	327900	332600	269000	208800	200800
26	224800	232800	239200	250400	266900	288700	316800	327900	331600	266400	207900	200500
27	224800	232800	239800	250400	268500	289800	317400	328100	330700	263500	207200	200300
28	224800	232900	240400	250500	269900	292100	317800	328500	329400	261000	206200	200200
29	225200	232900	240700	250800	271100	293400	318000	328600	327700	258400	205400	200100
30	226200	232900	241300	251300	---	294600	318400	328600	326000	255600	204700	200100
31	227200	---	241900	251500	---	294800	---	330000	---	253200	204200	---
MAX	227200	232900	241900	251500	271100	294800	318400	330000	334800	323900	250500	203900
MIN	224700	227200	232900	242100	251800	271500	296700	318800	326000	253200	204200	200100
≠	1938.41	1938.95	1939.75	1940.59	1942.22	1944.10	1945.90	1946.75	1946.46	1940.73	1936.16	1935.75
≠	-100	+5700	+9000	+9600	+19600	+23700	+23600	+11600	-4000	-72800	-49000	-4100

CAL YR 1979 MAX 254000 MIN 185300 +56600
WTR YR 1980 MAX 334800 MIN 200100 -27200

≠ Elevation, in feet, at end of month.
≠ Change in contents, in acre-feet.

KANSAS RIVER BASIN

06849500 REPUBLICAN RIVER BELOW HARLAN COUNTY DAM, NE

LOCATION.--Lat 40°04'45", long 99°10'05", in SW1/4 sec.6, T.1 N., R.16 W., Franklin County, Hydrologic Unit 10250016, on left bank 1.4 mi (2.3 km) west of Naponee, 1.4 mi (2.3 km) upstream from Turkey Creek, and 2.8 mi (4.5 km) downstream from Harlan County Dam.

DRAINAGE AREA.--20,760 mi^2 (53,800 km^2), approximately, of which about 13,550 mi^2 (35,100 km^2) contributes directly to surface runoff.

PERIOD OF RECORD.--December 1952 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,863.38 ft (567.958 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark).

REMARKS.--Records fair except those for winter period, which are poor. Flow completely regulated by Harlan County Lake (station 06849000) and partially regulated by six upstream reservoirs.

AVERAGE DISCHARGE.--27 years (1953-80), 272 ft^3/s (7.703 m^3/s), 197,100 acre-ft/yr (0.243 km^3/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,320 ft^3/s (122 m^3/s) June 25, 1957, gage height, 8.65 ft (2.637 m); minimum daily, 1.5 ft^3/s (0.042 m^3/s) Apr. 28, 29, 1957.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood since at least 1826 occurred June 1, 1935, discharge, about 260,000 ft^3/s (7,360 m^3/s), from slope-area measurement near Bloomington.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,050 ft^3/s (29.7 m^3/s) July 20, gage height, 4.27 ft (1.301 m); minimum daily, 5.2 ft^3/s (0.15 m^3/s) Oct. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	12	10	9.0	9.0	8.8	23	12	22	565	918	137
2	9.8	10	11	9.2	9.2	9.4	24	12	59	571	913	78
3	9.6	11	11	10	9.6	12	37	10	23	513	929	19
4	9.4	10	12	10	10	11	51	10	9.4	505	929	18
5	10	9.7	12	11	11	9.6	19	11	9.4	516	937	18
6	9.3	9.6	12	10	11	9.8	16	10	10	509	941	17
7	9.0	11	12	9.2	10	10	15	9.4	8.8	580	943	15
8	7.2	10	12	8.0	9.4	10	16	12	11	697	945	15
9	7.7	9.4	12	8.4	9.0	11	17	11	12	743	954	15
10	7.7	10	12	9.0	9.0	12	16	11	13	772	951	15
11	7.2	11	11	11	9.2	12	16	10	12	791	968	14
12	5.8	11	13	11	9.2	12	15	11	13	830	945	12
13	7.0	10	12	13	9.2	12	16	10	16	859	930	12
14	7.1	9.4	12	12	9.0	12	17	12	13	903	919	11
15	8.9	9.4	12	12	9.0	13	14	11	14	944	901	11
16	7.6	10	11	13	9.0	13	16	14	80	944	678	11
17	5.8	9.4	11	12	9.6	13	19	14	204	978	497	10
18	5.2	10	13	12	10	12	18	10	210	982	408	10
19	6.4	10	13	12	11	12	17	12	220	993	309	10
20	6.7	11	13	12	12	13	15	12	189	1010	286	10
21	7.2	12	12	12	13	13	15	14	132	977	295	10
22	8.2	12	12	12	14	12	15	12	135	965	228	9.4
23	6.3	10	12	12	14	13	19	12	135	963	113	9.4
24	6.5	10	12	12	15	13	16	11	156	957	117	10
25	7.7	11	12	12	17	13	15	12	176	935	128	9.4
26	7.2	11	12	10	14	14	14	12	260	907	141	10
27	7.6	11	12	8.8	14	14	14	12	313	901	123	10
28	8.2	10	12	8.8	14	26	13	11	365	895	121	8.9
29	7.9	10	12	9.0	9.5	24	12	12	449	889	121	8.8
30	14	10	12	9.0	---	20	12	12	501	912	123	9.3
31	14	---	10	9.0	---	19	---	19	---	938	135	---
TOTAL	252.2	310.9	367	328.4	318.9	408.6	542	363.4	3770.6	25444	17846	553.2
MEAN	8.14	10.4	11.8	10.6	11.0	13.2	18.1	11.7	126	821	576	18.4
MAX	14	12	13	13	17	26	51	19	501	1010	968	137
MIN	5.2	9.4	10	8.0	9.0	8.8	12	9.4	8.8	505	113	8.8
AC-FT	500	617	728	651	633	810	1080	721	7480	50470	35400	1100

CAL YR 1979 TOTAL 21935.5 MEAN 60.1 MAX 627 MIN 1.8 AC-FT 43510
WTR YR 1980 TOTAL 50505.2 MEAN 138 MAX 1010 MIN 5.2 AC-FT 100200

06851000 CENTER CREEK AT FRANKLIN, NE

LOCATION.--Lat 40°06'12", long 98°58'45", in NW1/4NE1/4 sec.35, T.2 N., R.15 W., Franklin County, Hydrologic Unit 10250016, on right bank at downstream side of bridge on State Highway 136, 1 mi (2 km) northwest of Franklin and 3 mi (5 km) upstream from mouth.

DRAINAGE AREA.--74 mi² (190 km²), approximately, of which about 56 mi² (150 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--April 1948 to September 1956. Annual maximums and occasional low-flow measurements, water years 1961-68. October 1968 to September 1975, October 1977 to current year.

REVISED RECORDS.--WSP 2119: 1963(M), 1965(M), drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,858.34 ft (566.422 m) National Geodetic Vertical Datum of 1929 (Water and Power Resources service bench mark). Prior to Dec. 19, 1952, nonrecording gage at site 1.5 mi (2.4 km) downstream at datum 30.27 ft (9.226 m) lower and Dec. 19, 1952, to Sept. 30, 1956, at present site at datum 0.84 ft (0.256 m) higher. Sept. 7, 1961, to Sept. 30, 1968, crest-stage gage and Oct. 1, 1968, to Sept. 30, 1975, recording gage at present site and datum.

REMARKS.--Records fair except those for winter period, which are poor. Two small diversions above station for irrigation.

AVERAGE DISCHARGE.--18 years (1948-56, 1968-75, 1978-80) 7.61 ft³/s (0.216 m³/s), 5,510 acre-ft/yr (6.79 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,150 ft³/s (89.2 m³/s) Sept. 20, 1950, gage height, 6.8 ft (2.07 m), from floodmark, site and datum then in use, from rating curve extended above 420 ft³/s (11.9 m³/s) on basis of slope-area measurement of peak flow; no flow at times during 1948-50.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 35 ft³/s (0.99 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 3	1300	50	1.4	1.85	0.564	May 31	1145	55	1.6	1.90	0.579
Apr. 4	0200	*108	3.1	2.25	0.686	June 2	0400	69	2.5	2.14	0.652

Minimum daily discharge, 2.0 cfs Aug. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.3	7.3	5.9	5.6	7.0	6.0	9.1	6.8	8.0	4.7	2.5	7.7
2	6.7	5.9	6.3	5.9	6.9	9.2	12	6.8	22	4.8	2.6	4.5
3	5.7	5.7	6.6	6.0	7.0	7.0	24	7.2	23	4.2	2.3	4.8
4	6.0	5.8	6.9	6.1	8.3	8.0	69	6.7	9.7	4.4	2.6	4.1
5	6.1	6.4	6.4	6.0	7.9	7.5	16	6.2	7.4	4.0	2.6	5.1
6	6.0	7.1	6.1	6.0	7.3	7.0	6.8	6.1	7.4	4.1	2.7	5.0
7	6.2	7.5	6.3	5.5	7.2	6.6	7.3	6.0	7.2	4.3	2.4	5.2
8	6.1	6.7	6.3	5.0	7.7	6.8	7.9	6.0	7.0	3.7	2.7	5.2
9	5.6	7.0	6.2	5.0	8.4	7.0	8.2	7.0	7.3	4.0	2.7	4.8
10	5.1	6.4	5.2	6.0	9.0	7.0	8.0	7.8	7.5	4.2	2.6	4.8
11	5.8	6.8	4.7	8.4	9.5	7.2	7.1	6.9	6.8	3.7	2.8	5.0
12	6.5	6.1	4.7	6.9	10	6.6	7.3	6.6	6.6	3.8	2.5	5.0
13	6.9	5.6	4.9	6.2	7.7	6.2	8.5	7.2	6.2	3.6	2.3	5.0
14	7.4	5.8	5.4	7.0	6.2	6.9	8.9	6.9	6.8	3.8	2.6	4.8
15	7.4	6.6	4.0	6.4	6.8	10	9.1	6.8	6.5	3.7	3.3	4.6
16	7.1	7.7	4.2	5.7	8.5	6.1	8.1	7.2	6.4	3.5	3.4	4.6
17	6.8	7.7	4.4	6.3	11	6.0	7.8	7.3	7.1	3.3	2.7	4.4
18	6.5	7.5	5.9	5.8	7.1	6.6	7.3	6.1	6.6	3.0	2.5	4.3
19	5.8	6.9	7.7	6.0	6.4	6.8	7.1	6.4	5.8	3.0	2.6	4.2
20	5.6	7.5	6.9	5.6	7.9	6.9	7.5	6.7	5.5	3.0	2.5	4.5
21	5.9	8.0	6.4	5.6	7.7	7.0	8.4	6.2	6.4	2.8	2.1	4.7
22	6.5	7.0	6.9	5.3	6.6	6.2	9.4	6.1	7.2	2.8	2.0	4.9
23	6.3	6.9	6.0	6.2	6.8	6.1	9.4	6.2	6.4	2.5	2.4	5.4
24	5.6	7.2	6.7	6.0	7.7	6.6	9.4	6.7	6.1	2.5	2.6	5.6
25	5.2	7.7	6.7	6.0	8.7	6.3	9.2	6.4	5.8	2.5	3.0	5.2
26	5.5	7.3	5.6	6.5	7.5	6.4	8.4	6.2	5.6	2.2	3.7	5.1
27	6.2	6.5	5.8	7.0	7.3	6.4	8.2	5.9	4.4	2.2	3.7	4.8
28	6.4	6.1	6.2	7.5	6.7	11	7.9	6.3	4.1	2.2	4.4	4.8
29	7.9	5.8	5.9	8.0	6.5	24	8.2	5.9	4.2	2.2	4.7	4.7
30	8.8	5.6	5.6	7.6	---	13	8.4	5.8	4.3	2.1	4.3	4.4
31	7.2	---	5.4	7.1	---	7.7	---	9.0	---	2.4	5.4	---
TOTAL	198.1	202.1	182.2	194.2	223.3	242.1	333.9	205.4	225.3	103.2	91.2	147.2
MEAN	6.39	6.74	5.88	6.26	7.70	7.81	11.1	6.63	7.51	3.33	2.94	4.91
MAX	8.8	8.0	7.7	8.4	11	24	69	9.0	23	4.8	5.4	7.7
MIN	5.1	5.6	4.0	5.0	6.2	6.0	6.8	5.8	4.1	2.1	2.0	4.1
AC-FT	393	401	361	385	443	480	662	407	447	205	181	292

CAL YR 1979 TOTAL 5941.8 MEAN 16.3 MAX 730 MIN 2.7 AC-FT 11790
WTR YR 1980 TOTAL 2348.2 MEAN 6.42 MAX 69 MIN 2.0 AC-FT 4660

06851500 THOMPSON CREEK AT RIVERTON, NE

LOCATION.--Lat 40°05'21", long 98°45'38", in NW1/4NW1/4 sec.2, T.1 N., R.13 W., Franklin County, Hydrologic Unit 10250016, on left bank 8 ft (2 m) downstream from bridge on State Highway 136, at west edge of Riverton, 240 ft (73 m) upstream from Burlington Northern Inc. bridge, and 0.5 mi (0.8 km) upstream from mouth.

DRAINAGE AREA.--279 mi² (723 km²), of which about 190 mi² (492 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--April 1948 to September 1956, October 1968 to September 1975. Annual maximums, water years 1962-68 and occasional low-flow measurements, water years 1961-68. October 1977 tc current year.

REVISED RECORDS.--WRD Nebr. 1972: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,753.38 ft (534.430 m) National Geodetic Vertical Datum of 1929. Apr. 1 to Oct. 1, 1948, nonrecording gage 240 ft (73 m) downstream at datum 2.32 ft (0.707 m) higher. Oct. 1, 1948 to July 11, 1950, water-stage recorder at present site at datum 1.32 ft (0.402 m) higher, July 12, 1950, to Sept. 30, 1956, and Oct. 1, 1968 to Sept. 30, 1975, at present site and datum. Sept. 7, 1961, to Sept. 30, 1968, crest-stage gage at present site and datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation development above station.

AVERAGE DISCHARGE.--18 years (1948-56, 1968-75, 1978-80), 29.9 ft³/s (0.847 m³/s), 21,660 acre-ft/yr (26.7 hm³/yr); median of yearly mean discharges, 27 ft³/s (0.765 m³/s), 19,600 acre-ft/yr (24.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,200 ft³/s (346 m³/s) July 9, 1950, gage height, 13.22 ft (4.029 m), present datum, by slope-area measurement; minimum daily, 8.1 ft³/s (0.23 m³/s) Dec. 19, 1951.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 280 ft³/s (7.93 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 4	0900	*999	28.3	a7.02	2.140
June 2	0815	686	19.4	6.37	1.942

a High-water mark.

Minimum daily discharge, 9.5 ft³/s (0.27 m³/s) Aug. 7, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	24	19	22	21	25	56	22	26	22	13	15
2	17	22	19	22	21	24	94	22	195	22	12	13
3	17	21	19	21	22	23	111	22	53	20	13	13
4	18	21	19	20	22	22	366	21	72	19	11	13
5	18	20	19	21	22	25	101	21	29	17	12	13
6	18	20	19	22	23	21	51	20	19	15	13	12
7	18	21	20	20	23	20	33	20	18	16	9.5	12
8	18	21	20	19	24	22	27	21	19	16	9.5	12
9	17	21	20	21	26	23	25	21	19	16	10	13
10	18	20	20	22	28	45	22	20	19	15	12	14
11	19	21	20	21	28	25	21	20	18	15	12	14
12	18	21	20	21	30	22	21	21	20	14	11	14
13	19	20	20	21	28	22	22	22	19	15	11	13
14	18	20	20	21	26	23	23	22	19	16	12	14
15	19	20	20	20	24	55	22	22	19	14	32	15
16	19	20	18	26	22	67	24	31	20	13	44	16
17	18	20	25	21	20	31	24	30	20	13	45	15
18	19	20	21	20	20	22	24	25	21	13	28	14
19	20	20	21	20	20	20	23	23	21	12	15	14
20	19	22	21	20	25	20	23	24	22	13	12	14
21	19	22	21	20	35	20	23	24	22	12	12	14
22	21	20	21	20	45	20	23	23	24	13	14	14
23	19	19	22	20	50	21	22	23	20	12	12	14
24	20	19	21	22	47	21	23	23	20	13	12	14
25	21	19	21	25	66	22	23	22	20	14	11	14
26	19	19	21	25	37	24	23	21	20	14	13	14
27	20	19	21	24	34	24	23	22	19	14	14	14
28	20	18	22	24	27	47	23	22	19	13	14	15
29	23	18	23	24	25	64	24	21	20	12	12	16
30	42	18	22	23	---	77	22	20	19	13	13	16
31	30	---	22	22	---	64	---	30	---	14	16	---
TOTAL	619	606	637	670	841	961	1342	701	871	460	480.0	418
MEAN	20.0	20.2	20.5	21.6	29.0	31.0	44.7	22.6	29.0	14.8	15.5	13.9
MAX	42	24	25	26	66	77	366	31	195	22	45	16
MIN	17	18	18	19	20	20	21	20	18	12	9.5	12
AC-FT	1230	1200	1260	1330	1670	1910	2660	1390	1730	912	952	829

CAL YR 1979 TOTAL 14788.0 MEAN 40.5 MAX 992 MIN 12 AC-FT 29330
WTR YR 1980 TOTAL 8606.0 MEAN 23.5 MAX 366 MIN 9.5 AC-FT 17070

06852000 ELM CREEK AT AMBOY, NE

LOCATION.--Lat 40°05'20", long 98°26'07", in NE1/4NW1/4 sec.3, T.1 N., R.10 W., Webster County, Hydrologic Unit 10250016, on left bank at downstream side of bridge on State Highway 136 at east edge of Amboy, 2.5 mi (4.0 km) upstream from mouth, and 4.5 mi (7.2 km) east of Red Cloud.

DRAINAGE AREA.--39.2 mi² (101.5 km²).

PERIOD OF RECORD.--April 1948 to December 1953. Annual maximums, water years 1959, 1961-77 and occasional low flow measurements, water years 1954-77. October 1977 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,659.07 ft (505.685 m) National Geodetic Vertical Datum of 1929. Prior to July 17, 1952, nonrecording gage at upstream side of bridge at datum 7.26 ft (2.213 m) higher, and July 17, 1952, to Jan. 4, 1954, water-stage recorder, present site, at datum 6.26 ft (1.908 m) higher, and Sept. 6, 1961, to Sept. 30, 1977, crest-stage gage at present site and datum.

REMARKS.--Records good. Natural flow affected by pump irrigation development above station.

AVERAGE DISCHARGE.--8 years (1949-53, 1978-80), 21.3 ft³/s (0.60 m³/s), 15,430 acre-ft (19.0 hm³) per year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 6,000 ft³/s (170 m³/s) July 4, 1959, gage height, 17.05 ft (5.197 m), present datum; minimum daily, 10 ft³/s (0.28 m³/s) Aug. 4-10, 13, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 690 ft³/s (19.5 m³/s) Oct. 31, gage height, 12.65 ft (3.856 m), from high-water mark; minimum daily, 10 ft³/s (0.28 m³/s) Aug. 4-10, 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	95	15	15	15	19	80	16	20	14	11	14
2	14	45	15	14	17	19	104	16	55	15	11	14
3	13	25	15	15	18	19	250	16	59	15	11	13
4	13	20	16	15	17	18	90	16	24	15	10	13
5	13	16	15	15	17	18	45	16	20	14	10	13
6	13	16	15	15	16	18	29	16	18	15	10	13
7	14	16	15	14	16	18	23	16	16	14	10	12
8	14	16	15	14	15	18	19	15	15	13	10	12
9	14	15	15	14	15	19	18	16	14	13	10	12
10	14	15	15	16	16	42	18	16	14	13	10	12
11	14	15	15	14	16	29	17	15	14	14	11	12
12	14	15	15	16	15	23	16	15	14	13	11	12
13	14	15	15	16	15	20	16	15	14	13	10	11
14	14	15	15	16	14	20	16	15	14	12	11	12
15	14	15	15	16	14	20	16	15	13	13	15	13
16	14	15	14	17	13	19	16	15	13	13	16	13
17	14	15	15	17	13	18	16	16	13	12	14	13
18	14	16	15	17	13	18	16	16	13	12	13	13
19	14	15	15	17	12	18	17	16	12	13	12	12
20	15	16	15	17	13	18	17	16	13	13	12	12
21	15	18	15	17	47	18	17	16	14	12	11	12
22	15	20	15	16	89	18	17	16	14	12	12	12
23	15	18	15	16	54	17	17	16	14	12	12	12
24	15	17	15	17	41	17	17	16	14	12	11	12
25	15	17	15	17	41	16	17	16	14	12	11	12
26	15	16	15	16	32	16	17	16	14	12	11	12
27	15	16	15	16	28	17	17	16	14	12	12	12
28	15	15	15	16	24	30	17	17	13	12	13	13
29	15	15	16	16	21	46	16	17	14	11	12	13
30	110	15	15	16	---	70	16	16	14	11	12	13
31	291	---	15	15	---	99	---	20	---	11	14	---
TOTAL	813	598	466	488	677	775	1007	495	527	398	359	374
MEAN	26.2	19.9	15.0	15.7	23.3	25.0	33.6	16.0	17.6	12.8	11.6	12.5
MAX	291	95	16	17	89	99	250	20	59	15	16	14
MIN	13	15	14	14	12	16	16	15	12	11	10	11
AC-FT	1610	1190	924	968	1340	1540	2000	982	1050	789	712	742

CAL YR 1979 TOTAL 9087 MEAN 24.9 MAX 362 MIN 11 AC-FT 18020
WTR YR 1980 TOTAL 6977 MEAN 19.1 MAX 291 MIN 10 AC-FT 13840

06852500 COURTLAND CANAL AT NEBRASKA-KANSAS STATE LINE

LOCATION.--Lat 40°00'15", long 98°07'55", in SW1/4SE1/4 sec.32, T.1 N., R.7 W., Nuckolls County, Nebraska, Hydrologic Unit 10250016, on left bank 0.2 mi (0.3 km) upstream from Nebraska-Kansas State line and 3.5 mi (5.6 km) southwest of Superior, NE.

PERIOD OF RECORD.--October 1954 to current year.

GAGE.--Water-stage recorder and concrete Parshall flume. Datum of gage is 1,612.46 ft (491.478 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Canal diverts from Republican River at Courtland diversion dam in sec.7, T.1 N., R.9 W. Water is used for irrigation in Nebraska and Kansas; figures published herein represent that portion which flows into Kansas.

AVERAGE DISCHARGE.--26 years, 77.9 ft^3/s (2.206 m^3/s), 56,440 acre-ft/yr (69.6 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 781 ft^3/s (22.1 m^3/s) Sept. 2, 1973, gage height, 5.05 ft (1.539 m); no flow for many days in each year.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 664 ft^3/s (18.8 m^3/s) Aug. 16; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	.00	.00	.00	.00	.00	.00	.00	80	235	605	203
2	70	.00	.00	.00	.00	.00	.00	.00	80	266	614	216
3	69	.00	.00	.00	.00	.00	.00	.00	80	294	616	283
4	68	.00	.00	.00	.00	.00	.00	.00	82	308	625	232
5	69	.00	.00	.00	.00	.00	.00	.00	81	314	627	115
6	70	.00	.00	.00	.00	.00	.00	.00	78	314	636	94
7	71	.00	.00	.00	.00	.00	.00	.00	77	310	638	82
8	72	.00	.00	.00	.00	.00	.00	.00	76	303	634	72
9	68	.00	.00	.00	.00	.00	.00	.00	91	317	631	52
10	67	.00	.00	.00	.00	.00	.00	.00	110	372	638	68
11	71	.00	.00	.00	.00	.00	.00	.00	109	390	642	61
12	72	.00	.00	.00	.00	.00	.00	.00	100	414	642	58
13	71	.00	.00	.00	.00	.00	.00	25	92	434	658	53
14	71	.00	.00	.00	.00	.00	.00	76	94	476	651	51
15	74	.00	.00	.00	.00	.00	.00	75	90	492	653	57
16	76	.00	.00	.00	.00	.00	.00	80	75	522	664	53
17	75	.00	.00	.00	.00	.00	.00	81	73	528	607	6.5
18	76	.00	.00	.00	.00	.00	.00	80	84	532	516	.00
19	77	.00	.00	.00	.00	.00	.00	78	112	576	434	.00
20	80	.00	.00	.00	.00	.00	.00	76	159	607	388	.00
21	78	.00	.00	.00	.00	.00	.00	75	125	596	344	.00
22	71	.00	.00	.00	.00	.00	.00	75	103	598	338	.00
23	6.4	.00	.00	.00	.00	.00	.00	74	104	627	281	.00
24	.00	.00	.00	.00	.00	.00	.00	72	119	627	240	.00
25	.00	.00	.00	.00	.00	.00	.00	73	116	627	204	.00
26	.00	.00	.00	.00	.00	.00	.00	72	116	625	192	.00
27	.00	.00	.00	.00	.00	.00	.00	60	125	627	179	.00
28	.00	.00	.00	.00	.00	.00	.00	61	163	627	185	.00
29	.00	.00	.00	.00	.00	.00	.00	70	184	618	193	.00
30	4.1	.00	.00	.00	---	.00	.00	71	206	603	195	.00
31	3.4	---	.00	.00	---	.00	---	77	---	590	201	---
TOTAL	1602.90	.00	.00	.00	.00	.00	.00	1351.00	3184	14769	14671	1756.50
MEAN	51.7	.000	.000	.000	.000	.000	.000	43.6	106	476	473	58.6
MAX	80	.00	.00	.00	.00	.00	.00	81	206	627	664	283
MIN	.00	.00	.00	.00	.00	.00	.00	.00	73	235	179	.00
AC-FT	3180	.00	.00	.00	.00	.00	.00	2680	6320	29290	29100	3480

CAL YR 1979 TOTAL 20250.90 MEAN 55.5 MAX 301 MIN .00 AC-FT 40170
WTR YR 1980 TOTAL 37334.40 MEAN 102 MAX 664 MIN .00 AC-FT 74050

06853000 REPUBLICAN RIVER NEAR GUIDE ROCK, NE

LOCATION.--Lat 40°04'05", long 98°22'25", in SW1/4NE1/4 sec.7, T.1 N., R.9 W., Webster County, Hydrologic Unit 10250016, on left bank 300 ft (91 m) upstream from Willow Creek, 0.2 mi (0.3 km) downstream from Courtland diversion dam, and 2 mi (3 km) southwest of Guide Rock.

DRAINAGE AREA.--22,040 mi^2 (57,100 km^2), approximately, of which about 14,550 mi^2 (37,760 km^2) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1950 to current year.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,624.13 ft (495.035 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1959, at datum 5.00 ft (1.524 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation development above station, by regulation of upstream reservoirs, and since Nov. 14, 1952, by storage in Harlan County Lake (station 06849000).

AVERAGE DISCHARGE.--30 years, 346 ft^3/s (9.799 m^3/s), 250,700 acre-ft/yr (0.309 km^3/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,200 ft^3/s (827 m^3/s) June 16, 1957, gage height, 20.73 ft (6.319 m), present datum; minimum daily, 0.1 ft^3/s (0.003 m^3/s) May 26, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood since at least 1826 occurred June 1 or 2, 1935, discharge, about 250,000 ft^3/s (7,080 m^3/s), from slope-area measurements near Bloomington and Hardy.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,850 ft^3/s (52.4 m^3/s) Apr. 3, gage height, 12.54 ft (3.822 m); minimum daily, 1.0 ft^3/s (0.028 m^3/s) Oct. 11-14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	341	116	113	100	180	630	192	210	18	69	45
2	1.7	203	120	110	115	220	761	160	359	49	45	56
3	1.7	168	125	116	120	250	1540	161	864	103	50	20
4	1.5	150	130	111	125	209	1200	123	359	57	43	7.5
5	1.5	144	135	124	125	160	1040	152	220	26	45	9.7
6	1.5	136	138	115	120	170	612	151	134	18	62	10
7	1.2	134	130	70	110	180	432	149	103	5.2	46	9.0
8	1.2	131	128	65	90	195	354	136	85	15	28	11
9	1.2	129	123	65	75	189	311	135	50	40	28	16
10	1.2	124	125	90	80	253	293	135	30	13	31	16
11	1.0	127	123	110	88	242	284	138	21	20	65	14
12	1.0	127	119	140	92	214	264	92	29	30	104	12
13	1.0	120	119	144	95	205	257	47	32	10	83	11
14	1.0	123	127	142	95	199	249	45	25	39	60	12
15	1.2	125	128	161	95	191	245	44	14	56	150	12
16	1.2	125	90	181	90	255	235	77	16	52	329	52
17	1.2	127	76	172	110	213	220	130	24	19	248	88
18	1.2	128	85	162	150	184	217	115	28	39	125	84
19	1.2	128	110	152	165	175	231	90	39	33	118	77
20	1.5	136	130	145	171	170	228	83	37	5.0	34	68
21	1.5	156	140	144	248	165	233	73	80	10	23	68
22	54	163	141	144	486	157	230	68	90	48	35	65
23	101	154	151	142	365	156	194	65	42	41	103	64
24	97	148	140	152	310	151	204	61	13	46	45	65
25	96	146	126	157	325	151	191	59	4.4	39	13	63
26	92	144	125	100	286	151	207	53	12	47	3.1	58
27	91	142	123	65	307	151	200	47	24	60	13	56
28	87	134	116	90	220	249	183	43	41	43	12	54
29	86	114	120	95	202	457	170	39	45	25	6.8	56
30	366	110	121	95	---	713	154	30	61	27	1.2	56
31	895	---	111	95	---	731	---	74	---	34	26	---
TOTAL	1993.4	4337	3791	3767	4960	7286	11569	2967	3091.4	1071.2	2044.1	1235.2
MEAN	64.3	145	122	122	171	235	386	95.7	103	34.6	65.9	41.2
MAX	895	341	151	181	486	731	1540	192	864	103	329	88
MIN	1.0	110	76	65	75	151	154	30	4.4	5.0	1.2	7.5
AC-FT	3950	8600	7520	7510	9840	14450	22950	5890	6130	2120	4050	2450

CAL YR 1979 TOTAL 66936.1 MEAN 183 MAX 3140 MIN 1.0 AC-FT 132800
WTR YR 1980 TOTAL 48132.3 MEAN 132 MAX 1540 MIN 1.0 AC-FT 95470

06853000 REPUBLICAN RIVER NEAR GUIDE ROCK, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1962 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT										
23...	1415	100	625	8.0	11.0	200	11.0	4.2	K75	820
NOV										
19...	1445	132	670	8.0	11.0	40	11.2	2.8	K100	560
DEC										
17...	1415	76	790	8.0	.0	10	13.3	4.9	K25	K31
JAN										
15...	1420	156	610	7.8	2.0	15	13.1	1.6	<10	K67
FEB										
25...	1430	347	410	7.6	2.5	85	12.9	9.7	K100	K22800
MAR										
24...	1400	148	690	8.0	7.5	15	12.7	2.2	8	K31
APR										
21...	1345	248	785	7.7	23.0	20	9.4	4.4	K38	K100
MAY										
20...	1400	82	800	7.7	19.5	7	10.3	2.2	310	K100
JUN										
19...	1545	13	640	7.2	21.5	65	5.5	--	1400	300
JUL										
15...	1415	61	580	8.0	29.0	40	7.4	3.3	--	470
AUG										
26...	1345	1.5	605	8.1	29.0	20	10.9	8.7	--	K110
SEP										
23...	1545	64	650	8.0	19.0	85	9.6	3.7	K81	K31

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT										
23...	15	428	.58	116	.70	.22	1.4	1.6	2.3	.510
NOV										
19...	19	464	.63	165	1.3	.13	.66	.79	2.1	.220
DEC										
17...	23	542	.74	111	1.8	.06	.46	.52	2.3	.160
JAN										
15...	16	406	.55	171	1.3	.06	.46	.52	1.8	.140
FEB										
25...	15	347	.47	325	1.2	.29	2.0	2.3	3.5	.540
MAR										
24...	21	476	.65	190	.68	.06	.68	.74	1.4	.150
APR										
21...	25	564	.77	378	.79	.02	.98	1.0	1.8	.200
MAY										
20...	24	551	.75	122	.97	.06	.88	.94	1.9	.200
JUN										
19...	22	413	.56	14.8	.79	.14	1.6	1.7	2.5	.310
JUL										
15...	21	371	.50	61.1	.30	.04	1.7	1.7	2.0	.230
AUG										
26...	22	370	.50	1.50	.10	.02	.94	.96	1.1	.150
SEP										
23...	22	426	.58	73.6	.52	.12	1.1	1.2	1.7	.180

06853000 REPUBLICAN RIVER NEAR GUIDE ROCK, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLOR (PLAT-INUM COBALT UNITS) (00080)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
OCT											
23...	1415	10	280	52	85	17	30	.8	11	230	99
JAN											
15...	1420	10	260	40	81	14	28	.8	9.4	220	83
APR											
21...	1345	5	360	110	110	20	39	.9	12	250	140
JUL											
15...	1415	15	200	12	51	18	36	1.1	18	190	75

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)
OCT										
23...	.4	31	430	.70	.090	4	200	10	<1	0
JAN										
15...	.3	27	397	1.3	.100	--	--	50	--	--
APR										
21...	.5	25	526	.77	.120	3	200	80	1	0
JUL										
15...	.8	--	--	.27	.130	7	100	130	<1	10

DATE	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG) (71895)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
OCT										
23...	60	20	0	220	.1	.1	.0	2	0	<3
JAN										
15...	--	10	--	20	--	--	--	--	--	--
APR										
21...	0	40	0	80	.0	.0	.0	4	0	<3
JUL										
15...	3	10	5	20	.1	.1	.0	2	0	5

06853500 REPUBLICAN RIVER NEAR HARDY, NE

LOCATION.--Lat 39°59'33", long 97°55'53", in NW1/4NW1/4SW1/4 sec.6, T.1 S., R.5 W., in Kansas, Republic County, Hydrologic Unit, 10250016, at downstream side of highway bridge, 1.2 mi (1.9 km) southwest of Hardy and at mi 141.2 (227.2 km).

DRAINAGE AREA.--22,401 mi^2 (58,019 km^2), of which about 7,500 mi^2 (19,425 km^2) does not contribute directly to surface runoff.

PERIOD OF RECORD.--June 1904 to September 1915 (no winter records), April 1931 to current year. Prior to May 1932, published as "at Bostwick." Records for June 1896 to November 1903 published as "near Superior" in 18th to 22nd Ann. Repts., inclusive, Pt. 4, and WSP 75, 84, and 99, have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 806: Drainage area. WSP 1006: 1941. WSP 1340: 1905(M), 1907-9, 1912, 1914-15, 1931. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 1,501.46 ft (457.645 m) National Geodetic Vertical Datum of 1929. Prior to May 19, 1932, nonrecording gage at site at Bostwick, 20 mi (32 km) upstream at different datum.

REMARKS.--Records good except those for winter period and period of no gage-height record Oct. 1-24, which are poor. Natural flow affected by irrigation development above station and by storage in six reservoirs in Colorado and Nebraska. Considerable regulation since 1952 by Harlan County Reservoir (see site 06849000).

AVERAGE DISCHARGE.--49 years (water years 1914, 1933-80), 583 ft^3/s (16.51 m^3/s), 422,400 acre-ft/yr (0.521 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 225,000 ft^3/s (6,370 m^3/s) June 2, 1935, gage height, 19.4 ft (5.91 m), based on records for stations upstream; no flow Aug. 9-19, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stages since at least 1895, that of June 2, 1935, and 17.00 ft (5.182 m) June 24, 1947, discharge, 100,000 ft^3/s (2,830 m^3/s), based on records for upstream stations.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,530 ft^3/s (71.6 m^3/s) Oct. 31, gage height, 7.59 ft (2.313 m); minimum, 30 ft^3/s (0.85 m^3/s) July 14, 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	935	142	148	60	250	829	249	583	87	52	63
2	31	468	145	143	70	225	788	274	381	102	59	77
3	31	318	165	138	85	225	1630	264	530	136	78	82
4	31	267	181	120	100	225	1700	263	625	184	91	70
5	31	246	175	92	115	225	1150	237	391	168	98	51
6	31	217	183	74	140	250	932	235	294	128	114	49
7	31	199	170	66	140	294	677	241	220	100	122	46
8	31	195	160	64	125	289	571	231	165	65	108	45
9	31	189	155	65	110	293	507	224	145	56	95	43
10	31	183	156	80	110	390	471	224	124	54	91	44
11	31	178	153	100	110	376	449	218	96	60	102	46
12	31	176	146	115	110	303	427	215	87	42	107	45
13	31	173	139	135	120	260	403	191	82	49	147	42
14	32	170	141	160	130	245	386	146	82	39	171	43
15	33	165	155	158	130	242	372	139	75	58	179	44
16	35	164	130	213	120	239	364	150	65	58	312	47
17	35	164	110	222	120	285	366	180	64	92	454	49
18	35	163	125	213	130	256	360	226	67	90	390	83
19	35	162	140	201	140	230	353	216	70	72	253	85
20	40	167	160	179	155	221	348	182	130	70	238	79
21	50	187	170	170	168	220	341	164	154	69	161	74
22	65	208	180	163	190	216	333	150	192	88	118	71
23	80	207	170	158	215	210	323	137	216	92	112	68
24	94	190	200	165	290	204	306	127	147	78	115	69
25	98	182	166	168	600	201	293	122	106	77	130	72
26	100	177	157	152	486	204	283	116	91	88	82	70
27	98	173	154	110	397	213	286	109	64	88	71	70
28	98	165	152	90	336	279	286	101	61	101	67	69
29	96	156	153	75	293	452	272	97	67	103	68	69
30	326	149	154	60	---	803	258	95	74	86	63	72
31	2040	---	153	60	---	1360	---	106	---	70	62	---
TOTAL	3793	6693	4840	4097	5295	9685	16064	5629	5448	2650	4310	1837
MEAN	122	223	156	132	183	312	535	182	182	85.5	139	61.2
MAX	2040	935	200	222	600	1360	1700	274	625	184	454	85
MIN	31	149	110	60	60	201	258	95	61	39	52	42
AC-FT	7520	13280	9600	8130	10500	19210	31860	11170	10810	5260	8550	3640

CAL YR 1979 TOTAL 101947 MEAN 279 MAX 3500 MIN 25 AC-FT 202200
WTR YR 1980 TOTAL 70341 MEAN 192 MAX 2040 MIN 31 AC-FT 139500

06879900 BIG BLUE RIVER AT SURPRISE, NE

LOCATION.--Lat 41°06'05", long 97°18'35", in NW1/4NW1/4 sec.15, T.13 N., R.1 E., Butler County, Hydrologic Unit 10270201, on left bank 50 ft (15 m) downstream from bridge on county road at south edge of Surprise.

DRAINAGE AREA.--345 mi² (894 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1964 to current year. Prior to October 1965, published as North Branch Big Blue River at Surprise.

GAGE.--Water-stage recorder and concrete broad-crested weir control. Altitude of gage is 1,520 ft (463 m), from topographic map.

REMARKS.--Records good above 5 ft³/s (0.14 m³/s) and poor below.

AVERAGE DISCHARGE.--16 years, 26.8 ft³/s (0.759 m³/s), 19,420 acre-ft/yr (23.9 hm³/yr); median of yearly mean discharges, 23 ft³/s (0.651 m³/s), 16,700 acre-ft/yr (20.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,700 ft³/s (303 m³/s) July 19, 1965, gage height, 11.52 ft (3.511 m); no flow for many days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft³/s (7.08 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
June 4	0930	*1930	54.7	8.02	2.444
June 8	1515	316	8.9	3.24	0.988

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	25	.03	.08	.04	9.0	2.5	.32	1.3	.22	3.9	3.0
2	.00	15	.00	.07	.04	7.4	2.3	.32	.93	.15	3.4	2.0
3	.00	5.6	.06	.05	.04	6.2	16	.44	.64	.06	1.8	1.2
4	.00	2.2	.04	.04	.05	3.9	20	.15	1090	.06	2.0	.60
5	.00	2.0	.00	.01	.06	1.6	19	.03	93	.02	3.0	.20
6	.00	1.6	.00	.02	.05	1.1	13	.00	32	.03	1.8	.08
7	.00	.89	.00	.00	.05	.95	7.4	.00	15	.08	2.4	.03
8	.00	.44	.00	.00	.04	1.4	3.9	.00	253	.19	2.4	.00
9	.00	.58	.01	.00	.02	35	2.6	.00	164	1.2	2.4	.00
10	.00	.44	.05	.03	.03	183	2.4	.00	54	.58	1.6	.00
11	.00	.44	.00	.05	.00	142	2.4	.00	32	.44	43	.00
12	.00	.58	.23	.02	.00	110	2.0	.00	22	.58	33	.01
13	.00	.84	.32	.17	.00	95	1.8	.00	14	2.8	40	.00
14	.00	.44	.15	.09	.00	118	1.6	.03	8.1	1.7	19	.00
15	.00	.58	.13	.09	.00	70	1.6	.06	5.4	1.8	17	.00
16	.00	.81	.00	4.2	.00	41	1.6	.13	3.7	1.8	56	.00
17	.00	1.3	.00	5.2	.00	23	1.6	.44	3.1	1.8	64	.00
18	.00	1.5	.15	6.5	.02	14	1.2	.32	5.2	1.9	56	.00
19	.00	1.8	.15	4.9	.01	11	.89	.10	5.7	.49	70	.00
20	.00	2.4	.06	3.1	.01	6.9	.89	.06	3.7	.97	69	.00
21	.00	3.1	.15	2.0	17	3.5	1.2	.00	2.4	2.6	52	.00
22	.00	2.6	.01	1.1	88	1.4	1.6	.00	4.9	1.1	40	.00
23	.00	1.7	.03	.57	60	.31	1.1	.00	3.1	.32	27	.00
24	.00	1.3	.00	.70	84	.30	.73	.00	2.8	1.0	22	.00
25	.00	.90	.00	.58	52	.10	.58	.00	2.4	.89	20	.00
26	.00	.63	.10	.32	54	.25	.60	.00	1.8	1.1	16	.00
27	.00	.40	.22	.15	47	.36	.58	.00	1.4	1.1	12	.00
28	.00	.10	.05	.10	35	.48	.73	.00	.44	1.1	9.0	.00
29	.00	.04	.10	.10	12	1.2	.32	.00	.44	1.6	7.0	.00
30	4.5	.06	.10	.06	---	2.2	.22	.00	.32	1.8	5.6	.00
31	18	---	.09	.03	---	3.0	---	.00	---	2.0	4.0	---
TOTAL	22.50	75.27	2.23	30.33	449.46	893.55	112.34	2.40	1826.77	31.48	706.3	7.12
MEAN	.73	2.51	.072	.98	15.5	28.8	3.74	.077	60.9	1.02	22.8	.24
MAX	18	25	.32	6.5	88	183	20	.44	1090	2.8	70	3.0
MIN	.00	.04	.00	.00	.00	.10	.22	.00	.32	.02	1.6	.00
AC-FT	45	149	4.4	60	892	1770	223	4.8	3620	62	1400	14

CAL YR 1979 TOTAL 9288.45 MEAN 25.4 MAX 1070 MIN .00 AC-FT 18420
WTR YR 1980 TOTAL 4159.75 MEAN 11.4 MAX 1090 MIN .00 AC-FT 8250

06879900 BIG BLUE RIVER AT SURPRISE, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965-70, 1974-80.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	TEMPER-ATURE, WATER (DEG C) (00010)
JAN				
15...	1130	.08	552	1.0
FEB				
05...	1200	.08	704	1.0
MAR				
18...	1250	15	180	6.0
APR				
08...	1320	3.9	520	11.0
MAY				
20...	1120	.06	438	17.5
JUN				
04...	1145	1780	91	21.0
10...	1430	48	158	24.0
JUL				
22...	1200	1.0	464	26.0
AUG				
12...	1515	17	230	26.5

06880000 LINCOLN CREEK NEAR SEWARD, NE

LOCATION.--Lat 40°54'57", long 97°08'43", in NW1/4NE1/4 sec.24, T.11 N., R.2 E., Seward County, Hydrologic Unit 10270201, on left bank 20 ft (6 m) downstream from county road bridge, 2 mi (3 km) west of Seward, and 2.5 mi (4.0 km) upstream from mouth.

DRAINAGE AREA.--446 mi² (1,155 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1953 to September 1973, March 1974 to current year. Monthly discharge only for some periods, published in WSP 1730.

REVISED RECORDS.--WSP 2119: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,429.27 ft (435.641 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor. Small diversions for irrigation above station.

AVERAGE DISCHARGE.--26 years, (1953-73, 1975-80) 44.0 ft³/s (1.246 m³/s), 31,880 acre-ft/yr (39.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,100 ft³/s (286 m³/s) June 17, 1957, gage height, 20.53 ft (6.258 m); minimum daily, 1.3 ft³/s (0.037 m³/s) July 31, 1955.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 350 ft³/s (9.91 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 23	----	370	10.5	ice jam	
June 2	1100	1080	30.6	[a]14.00	4.267
June 8	1930	*1750	49.6	[b]16.45	5.014
Aug. 11	0830	380	10.8	8.97	2.734

a Based on partial record during day.

b From floodmark.

Minimum daily discharge, 4.6 ft³/s (0.13 m³/s) Dec. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	51	7.4	7.4	7.0	43	22	12	179	11	15	6.9
2	6.2	30	8.0	7.0	10	45	24	12	602	11	15	6.6
3	6.2	21	9.6	8.3	9.6	52	41	12	99	13	15	6.1
4	6.2	17	10	8.2	10	42	62	12	27	12	12	5.9
5	6.2	18	10	7.7	11	34	63	12	81	11	9.6	5.9
6	6.2	18	9.8	8.8	11	41	44	11	225	8.5	15	5.9
7	6.2	23	9.8	6.7	10	37	36	11	614	8.6	11	5.9
8	6.2	19	9.2	7.0	10	36	30	11	1440	6.8	14	5.9
9	6.2	16	8.2	9.1	9.7	68	28	11	1310	6.7	12	6.0
10	6.2	14	8.5	9.9	10	192	26	11	508	6.4	15	6.1
11	6.2	12	7.8	9.2	10	222	25	11	133	8.9	277	6.0
12	6.2	12	7.8	9.4	9.6	162	22	11	61	9.7	100	6.0
13	6.2	10	7.7	10	10	106	20	11	42	11	66	5.9
14	6.2	9.8	7.3	11	11	79	19	11	34	11	30	5.8
15	6.4	9.3	7.5	11	10	100	18	11	29	9.4	46	5.9
16	6.6	8.9	4.6	11	9.4	111	17	11	25	13	197	6.1
17	7.0	8.6	7.8	10	10	76	16	13	22	13	156	6.1
18	8.0	8.8	8.2	11	11	58	15	12	21	13	104	6.1
19	7.8	8.3	7.6	10	12	44	15	11	19	13	52	6.2
20	7.6	8.3	7.3	10	12	35	14	11	17	13	37	6.0
21	8.0	9.1	7.0	11	20	30	14	10	17	15	26	5.9
22	10	11	6.6	10	169	27	14	9.9	19	16	15	6.1
23	9.6	12	6.9	10	350	25	14	9.7	17	13	13	6.3
24	9.0	9.9	6.8	11	240	23	13	9.6	16	16	13	6.1
25	8.8	9.2	6.8	11	120	22	13	9.8	15	13	11	6.1
26	8.8	8.9	7.0	7.9	56	21	13	9.7	16	11	10	6.1
27	8.8	8.8	7.2	7.4	64	20	13	9.5	15	11	9.7	6.1
28	9.0	7.6	7.2	7.0	62	20	13	9.3	18	13	8.1	5.9
29	9.0	7.8	7.5	7.2	52	21	12	9.4	15	15	7.6	6.1
30	27	8.8	7.9	6.4	---	23	12	9.6	13	15	7.0	6.1
31	117	---	8.0	6.0	---	23	---	10	---	15	7.3	---
TOTAL	355.2	416.1	243.0	277.6	1336.3	1838	688	334.5	5649	363.0	1326.3	182.1
MEAN	11.5	13.9	7.84	8.95	46.1	59.3	22.9	10.8	188	11.7	42.8	6.07
MAX	117	51	10	11	350	222	63	13	1440	16	277	6.9
MIN	6.2	7.6	4.6	6.0	7.0	20	12	9.3	13	6.4	7.0	5.8
AC-FT	705	825	482	551	2650	3650	1360	663	11200	720	2630	361

CAL YR 1979 TOTAL 20526.9 MEAN 56.2 MAX 2180 MIN 4.6 AC-FT 40720
WTR YR 1980 TOTAL 13009.1 MEAN 35.5 MAX 1440 MIN 4.6 AC-FT 25800

06880000 LINCOLN CREEK NEAR SEWARD, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963-70, 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT										
26...	1300	8.8	554	8.0	9.5	25	9.1	2.9	K80	220
NOV										
16...	1400	8.9	525	8.0	4.5	25	8.2	2.7	310	700
DEC										
04...	1200	9.8	545	7.6	.5	10	12.2	5.1	K92	260
JAN										
15...	1030	10	520	7.6	1.5	5	12.3	3.2	K30	K1080
FEB										
05...	1110	10	551	7.7	.0	8	10.5	3.8	K10	128
MAR										
18...	1140	55	275	7.5	4.0	170	10.5	12	K170	7800
APR										
08...	1150	29	405	7.5	12.0	400	5.3	8.8	K1800	48000
MAY										
20...	1015	11	577	7.7	14.5	--	8.8	4.2	230	1200
JUN										
10...	1225	481	129	7.1	21.5	420	4.7	16	2700	24000
JUL										
22...	1030	11	500	8.0	23.0	85	5.8	5.3	1270	5000
AUG										
12...	1230	71	250	7.4	24.0	350	5.2	6.3	4000	K28000
SEP										
23...	1030	6.0	555	8.2	14.0	40	8.6	2.6	350	5500

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT										
26...	11	323	.44	7.67	.51	.01	.87	.88	1.4	.390
NOV										
16...	13	340	.46	8.17	2.8	.29	1.1	1.4	4.2	.770
DEC										
04...	8.9	337	.46	8.92	2.3	.05	.71	.76	3.1	.430
JAN										
15...	9.5	334	.45	9.65	1.6	.12	1.3	1.4	3.0	.240
FEB										
05...	8.5	354	.48	10.1	2.1	.06	.66	.72	2.8	.270
MAR										
18...	20	235	.32	35.4	1.5	1.3	21	22	24	.930
APR										
08...	14	307	.42	24.0	2.6	2.1	5.8	7.9	11	2.000
MAY										
20...	7.2	367	.50	11.1	1.4	.19	.91	1.1	2.5	.490
JUN										
10...	3.1	116	.16	151	.67	.79	2.6	3.4	4.1	1.600
JUL										
22...	11	326	.44	10.5	2.4	.12	1.9	2.0	4.4	.790
AUG										
12...	8.5	184	.25	35.5	3.6	.18	3.8	4.0	7.6	1.100
SEP										
23...	7.0	341	.46	5.53	.87	.02	1.3	1.3	2.2	.470

06880000 LINCOLN CREEK NEAR SEWARD, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLOR (PLAT-INUM COBALT UNITS) (00080)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
NOV 16...	1400	25	220	0	67	13	28	.8	12	230	52
FEB 05...	1110	20	240	0	73	14	28	.8	7.7	240	41
MAY 20...	1015	10	240	0	71	14	29	.8	7.8	240	43
AUG 12...	1230	200	82	16	23	5.9	13	.6	18	66	22

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)
NOV 16...	.3	36	373	2.8	.660	7	200	70	<1	0
FEB 05...	.2	32	359	2.2	.250	--	--	80	--	--
MAY 20...	.4	26	350	1.4	.310	7	200	80	2	0
AUG 12...	.3	11	183	--	.600	--	--	90	--	--

DATE	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG) (71895)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV 16...	3	70	0	200	.1	.0	.1	7	0	7
FEB 05...	--	30	--	280	--	--	--	--	--	--
MAY 20...	6	40	3	340	.4	.1	.3	7	0	20
AUG 12...	--	220	--	50	--	--	--	--	--	--

06880500 BIG BLUE RIVER AT SEWARD, NE

LOCATION.--Lat 40°54'05", long 97°05'55", in NW1/4NW1/4 sec.28, T.11 N., R.3 E., Seward County, Hydrologic Unit 10270201, at downstream end of left abutment of bridge on State Highway 15 at south edge of Seward, 0.5 mi (0.8 km) upstream from Plum Creek and 1.4 mi (2.3 km) downstream from Lincoln Creek.

DRAINAGE AREA.--1,101 mi^2 (2,852 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1953 to current year. Monthly discharge only for some periods, published in WSP 1730.

REVISED RECORDS.--WSP 1919: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,415.16 ft (431.341 m) National Geodetic Vertical Datum of 1929. Prior to Dec. 19, 1969, at site 1.2 mi (1.9 km) upstream at datum 6.33 ft (1.929 m) higher.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow of stream affected by ground-water withdrawals and diversions for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--27 years, 111 ft^3/s (3.144 m^3/s), 80,420 acre-ft/yr (99.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,300 ft^3/s (433 m^3/s) June 18, 1957; maximum gage height, 22.83 ft (6.959 m) June 16, 1967, site and datum then in use; no flow July 30, 31, 1955, result of irrigation pumping.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 900 ft^3/s (25.5 m^3/s) and maximum (*):

Date	Time	Discharge		Gage height		Date	Time	Discharge		Gage height	
		(ft^3/s)	(m^3/s)	(ft)	(m)			(ft^3/s)	(m^3/s)	(ft)	(m)
Feb. 23	----	1350	38.2	ice jam		June 9	0200	1730	49.0	[a]14.60	4.450
June 2	1800	*2050	58.1	15.81	4.819						

[a] From floodmark.

Minimum daily discharge, 4.4 ft^3/s (0.12 m^3/s) July 11.

REVISIONS.--The maximum discharge for the water year 1979 has been revised to 3,930 ft^3/s (111 m^3/s), Mar. 15, 1979 at 0100, gage height, 21.67 ft (6.605 m), superceding figure published in the report for 1979.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	400	22	23	15	80	111	31	355	16	12	15
2	9.8	194	23	24	20	80	104	31	1430	16	13	13
3	9.8	86	26	23	19	82	231	30	574	17	12	13
4	9.8	61	25	22	21	76	244	30	100	14	12	12
5	9.8	49	26	22	23	68	246	30	581	14	8.5	11
6	10	40	26	22	21	64	165	29	700	8.5	14	11
7	10	42	27	20	21	60	124	28	550	9.2	12	10
8	10	42	27	19	21	56	100	27	1200	6.4	11	10
9	10	38	31	18	19	110	85	27	1560	6.4	9.4	11
10	10	33	30	25	21	500	75	27	784	6.6	10	10
11	12	30	28	24	20	600	70	26	269	4.4	355	9.4
12	14	28	24	24	19	450	64	26	120	8.2	175	9.0
13	15	27	26	27	21	300	59	27	83	8.0	97	8.7
14	15	26	27	21	22	200	57	27	66	10	63	8.3
15	18	26	24	22	21	250	52	27	56	7.8	74	7.6
16	18	25	20	23	20	350	48	31	48	9.6	439	8.0
17	12	25	17	22	19	250	47	35	42	13	178	7.8
18	12	25	25	25	22	176	45	34	42	11	118	7.2
19	13	24	25	24	25	128	43	35	39	11	100	6.8
20	13	24	23	23	28	100	42	38	37	9.1	97	7.2
21	13	29	23	24	32	85	39	34	64	11	97	7.0
22	15	28	20	23	430	74	37	32	49	11	77	7.2
23	14	23	24	22	1180	66	38	32	42	8.9	58	7.6
24	15	32	26	25	1000	60	35	29	67	9.6	44	7.9
25	15	31	26	22	540	56	33	28	50	11	33	8.1
26	16	32	27	19	280	54	32	26	37	8.5	26	8.3
27	17	29	27	18	250	53	32	26	31	7.8	29	9.4
28	17	24	27	18	180	57	32	25	26	9.4	21	10
29	18	24	27	18	100	84	31	24	22	12	17	11
30	80	26	27	15	---	109	31	24	17	13	17	12
31	492	---	25	14	---	120	---	27	---	12	16	---
TOTAL	953.2	1523	781	671	4410	4798	2352	903	9041	320.4	2244.9	284.5
MEAN	30.7	50.8	25.2	21.6	152	155	78.4	29.1	301	10.3	72.4	9.48
MAX	492	400	31	27	1180	600	246	38	1560	17	439	15
MIN	9.8	23	17	14	15	53	31	24	17	4.4	8.5	6.8
AC-FT	1890	3020	1550	1330	8750	9520	4670	1790	17930	636	4450	564

CAL YR 1979 TOTAL 53939.2 MEAN 148 MAX 3870 MIN 9.8 AC-FT 107000
WTR YR 1980 TOTAL 28282.0 MEAN 77.3 MAX 1560 MIN 4.4 AC-FT 56100

06880500 BIG BLUE RIVER AT SEWARD, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1978 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 26...	1400	17	656	8.3	10.0	30	--	8.1	330	K1800
NOV 16...	1500	24	785	8.0	5.5	15	13.8	--	--	1200
DEC 04...	1030	28	850	7.6	.0	9	12.7	7.7	K154	K470
JAN 15...	0950	22	758	7.8	1.0	7	13.4	3.3	K30	420
FEB 05...	1000	22	717	7.6	.0	7	10.1	2.2	200	170
MAR 18...	1005	180	314	7.5	4.0	170	11.6	7.4	K400	K37000
APR 08...	1030	100	640	8.0	12.0	250	6.2	8.2	2600	K135000
MAY 20...	0900	38	740	7.7	12.5	--	8.4	3.1	K150	200
JUN 10...	1030	810	215	7.4	21.5	550	5.0	14	4500	15500
JUL 22...	0915	13	538	8.0	23.5	75	5.8	6.9	4400	2800
AUG 12...	0930	162	230	7.2	22.5	400	5.4	10	15000	K76000
SEP 23...	0830	7.0	580	8.0	14.5	40	7.7	2.4	670	2200

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT 26...	13	414	.56	19.0	.34	.10	.04	.14	.48	.440
NOV 16...	15	550	.75	36.7	2.4	.28	1.0	1.3	3.7	.600
DEC 04...	11	579	.79	44.4	2.0	.08	.86	.94	2.9	.410
JAN 15...	12	542	.74	32.5	1.1	.04	1.2	1.2	2.3	.260
FEB 05...	9.8	482	.66	29.8	2.0	.18	.69	.87	2.9	.300
MAR 18...	9.3	236	.32	115	1.2	.99	7.7	8.7	9.9	.840
APR 08...	17	426	.58	115	1.9	1.5	7.2	8.7	11	1.000
MAY 20...	8.1	443	.60	45.6	.59	.28	1.2	1.5	2.1	.480
JUN 10...	4.9	161	.22	352	1.2	.48	2.9	3.4	4.6	.430
JUL 22...	12	351	.48	12.6	1.8	.10	2.0	2.1	3.9	.710
AUG 12...	9.6	185	.25	80.9	4.7	.23	4.8	5.0	9.7	1.100
SEP 23...	8.6	324	.44	6.16	.74	.04	1.3	1.3	2.0	.470

06880500 BIG BLUE RIVER AT SEWARD, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLOR (PLAT-INUM COBALT UNITS) (00080)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
NOV											
16...	1500	25	330	60	94	23	47	1.1	14	270	140
FEB											
05...	1000	15	320	31	94	21	40	1.0	9.9	290	95
MAY											
20...	0900	15	290	19	81	21	40	1.0	9.4	270	84
AUG											
12...	0930	250	75	8	21	5.5	14	.7	14	67	23

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)
NOV										
16...	.3	29	537	2.4	.540	[illegible]	200	80	<1	0
FEB										
05...	.2	27	481	2.0	.240	--	--	60	--	--
MAY										
20...	.4	16	426	.59	.240	7	200	70	1	0
AUG										
12...	.3	8.5	157	4.5	.350	--	--	90	--	--

DATE	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG) (71895)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV										
16...	7	80	2	280	.1	.0	.1	3	0	10
FEB										
05...	--	20	--	410	--	--	--	--	--	--
MAY										
20...	4	30	3	750	.7	.3	.4	4	0	20
AUG										
12...	--	250	--	70	--	--	--	--	--	--

06880800 WEST FORK BIG BLUE RIVER NEAR DORCHESTER, NE

LOCATION.--Lat 40°43'52", long 97°10'38", in SE1/4SE1/4 sec.23, T.9 N., R.2 E., Seward County, Hydrologic Unit 10270203, on right bank 60 ft (18 m) downstream from bridge on county road, 6.2 mi (10.0 km) northwest of Dorchester, and 19 mi (31 km) upstream from mouth.

DRAINAGE AREA.--1,206 mi^2 (3,124 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1958 to current year.

REVISED RECORDS.--WSP 1919: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,403.48 ft (427.781 m) National Geodetic Vertical Datum of 1929. Prior to Apr. 14, 1970, at site 60 ft (18 m) upstream at same datum.

REMARKS.--Records fair except those for winter period, which are poor. Some diversion by pumping for irrigation above station. Natural flow of stream affected by ground-water withdrawals for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--22 years, 168 ft^3/s (4.758 m^3/s), 121,700 acre-ft/yr (0.150 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,400 ft^3/s (323 m^3/s) Mar. 20, 1969, gage height, 20.34 ft (6.200 m); minimum daily, 12 ft^3/s (0.34 m^3/s) Dec. 31, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 10, 1950, reached a stage of 24.8 ft (7.56 m), present datum, from floodmarks, discharge, 49,400 ft^3/s (1,400 m^3/s), from contracted-opening and flow-over-road measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,570 ft^3/s (44.5 m^3/s) June 3 at 0600, gage height, 11.45 ft (3.490 m), from floodmark, no other peak above base of 1,500 ft^3/s (42.5 m^3/s); minimum daily, 29 ft^3/s (0.82 m^3/s) Sept. 23-27, 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	361	45	46	33	130	212	71	96	41	36	44
2	35	466	48	43	44	140	252	71	743	59	37	41
3	34	417	60	45	42	150	402	70	1320	51	39	41
4	34	325	80	44	44	100	499	68	647	51	39	39
5	34	201	74	46	47	80	494	67	617	54	38	38
6	34	141	74	42	44	98	443	66	631	57	44	39
7	35	108	72	40	42	100	462	63	737	106	43	37
8	35	91	68	37	42	82	301	63	1050	61	42	38
9	34	77	76	35	38	101	196	62	606	49	40	36
10	32	69	80	58	45	487	162	62	280	43	40	35
11	35	63	66	54	38	597	136	62	165	40	277	34
12	35	59	60	56	35	570	125	62	130	32	395	34
13	35	55	68	68	60	469	106	62	117	32	230	32
14	37	52	54	64	80	476	95	62	106	34	179	32
15	37	50	49	60	76	392	93	62	96	35	150	33
16	38	49	43	64	74	294	88	67	89	35	534	35
17	38	47	47	120	68	231	87	72	83	40	346	34
18	38	48	50	135	94	186	86	72	78	44	225	32
19	43	48	52	126	118	171	82	67	73	45	155	32
20	41	48	50	96	110	143	80	67	70	46	149	31
21	41	50	49	86	122	120	75	76	66	44	125	31
22	41	54	48	73	320	106	71	76	64	41	96	30
23	41	60	47	67	580	89	69	76	60	40	80	29
24	41	56	44	63	500	77	69	67	59	37	62	29
25	41	54	42	52	520	70	67	67	55	41	53	29
26	41	50	43	45	450	67	70	62	53	51	47	29
27	41	50	44	42	320	67	70	62	50	48	49	29
28	40	48	45	40	250	69	71	61	50	49	44	30
29	40	47	46	41	220	83	72	60	52	47	39	29
30	110	52	47	34	---	149	71	59	46	38	49	29
31	320	---	47	30	---	166	---	60	---	36	49	---
TOTAL	1516	3296	1718	1852	4456	6060	5106	2044	8289	1447	3731	1011
MEAN	48.9	110	55.4	59.7	154	195	170	65.9	276	46.7	120	33.7
MAX	320	466	80	135	580	597	499	76	1320	106	534	44
MIN	32	47	42	30	33	67	67	59	46	32	36	29
AC-FT	3010	6540	3410	3670	8840	12020	10130	4050	16440	2870	7400	2010

CAL YR 1979 TOTAL 89470 MEAN 245 MAX 4300 MIN 18 AC-FT 177500
WTR YR 1980 TOTAL 40526 MEAN 111 MAX 1320 MIN 29 AC-FT 80380

06880800 WEST FORK BIG BLUE RIVER NEAR DORCHESTER, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963-70, 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 16...	0930	38	570	8.0	11.5	20	8.2	5.7	K150	580
NOV 17...	1020	47	472	7.9	5.5	30	10.4	2.5	870	5500
DEC 13...	1145	65	579	7.8	.5	10	12.6	3.2	120	190
JAN 24...	1245	61	520	6.8	.5	40	11.6	2.0	K62	6300
FEB 11...	1045	38	625	7.8	.5	6	14.6	4.6	K38	180
MAR 04...	1000	119	320	7.3	.0	180	10.9	16	K100	840
APR 14...	0945	102	480	7.6	7.0	140	10.1	2.6	K150	2000
MAY 08...	1130	63	595	8.4	12.5	20	15.1	12	K160	160
JUN 23...	1000	63	565	7.6	22.5	65	7.2	7.8	2300	3800
JUL 08...	0915	90	366	7.7	26.5	430	5.5	4.2	5300	K8500
AUG 18...	1020	232	270	7.3	24.0	--	6.1	8.4	25000	42000
SEP 09...	1035	35	578	8.1	19.0	50	8.5	5.9	2700	980

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT 16...	37	361	.49	37.0	.61	.15	.95	1.1	1.7	.500
NOV 17...	14	328	.45	41.7	1.9	.24	.75	.99	2.9	.700
DEC 13...	23	358	.49	62.8	2.4	.46	1.2	1.7	4.1	1.600
JAN 24...	20	338	.46	55.7	2.3	.80	.40	1.2	3.5	1.100
FEB 11...	21	385	.52	39.5	2.6	.78	1.7	2.5	5.1	.690
MAR 04...	13	232	.32	74.5	2.0	1.0	2.3	3.3	5.3	.890
APR 14...	13	290	.39	79.9	2.2	.33	1.2	1.5	3.7	.830
MAY 08...	22	333	.45	56.8	.05	.13	1.9	2.0	2.0	.520
JUN 23...	26	379	.52	64.6	1.3	.09	2.2	2.3	3.6	.690
JUL 08...	13	247	.34	60.6	.25	.03	6.6	6.6	6.9	2.100
AUG 18...	13	184	.25	115	3.0	.12	2.3	2.4	5.4	1.700
SEP 09...	25	338	.46	32.8	.60	.04	1.6	1.6	2.2	.800

06880800 WEST FORK BIG BLUE RIVER NEAR DORCHESTER, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLOR (PLAT-INUM COBALT UNITS) (00080)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
NOV 17...	1020	20	190	0	57	11	25	.8	9.9	190	48
FEB 11...	1045	0	230	13	72	13	37	1.1	8.2	220	57
MAY 08...	1130	20	210	4	66	12	38	1.1	8.6	210	54
AUG 18...	1020	250	92	13	27	6.0	14	.6	14	79	25

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)
NOV 17...	.2	29	317	1.9	.550	5	200	60	5	0
FEB 11...	.2	32	385	2.6	.650	--	--	110	--	--
MAY 08...	.4	14	342	.05	.270	5	200	80	<1	0
AUG 18...	.3	12	172	2.9	.170	--	--	140	--	--

DATE	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG) (71895)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV 17...	3	30	0	200	.2	.0	.2	3	0	10
FEB 11...	--	20	--	310	--	--	--	--	--	--
MAY 08...	7	10	0	90	.0	.0	.0	4	0	3
AUG 18...	--	60	--	10	--	--	--	--	--	--

06881000 BIG BLUE RIVER NEAR CRETE, NE

LOCATION.--Lat 40°35'47", long 96°57'36", in SW1/4SE1/4 sec.3, T.7 N., R.4 E., Saline County, Hydrologic Unit 10270202, on downstream side of right pier of highway bridge, 1.8 mi (2.9 km) south of Missouri Pacific Railroad station in Crete, 3.3 mi (5.3 km) downstream from Walnut Creek, and 3.6 mi (5.8 km) upstream from Squaw Creek.

DRAINAGE AREA.--2,716 mi^2 (7,034 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1945 to current year. Prior to Oct. 1, 1953, discharge published only for stages above 12.0 ft because of variable backwater from dam downstream until 1952 and diurnal fluctuation from powerplant upstream in 1952-53.

REVISED RECORDS.--WSP 1919: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,311.7 ft (399.81 m) National Geodetic Vertical Datum of 1929. Prior to Jan. 20, 1954, nonrecording gage at present site and datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by ground-water and surface-water withdrawals for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--27 years (1953-80), 346 ft^3/s (9.799 m^3/s), 250,700 acre-ft/yr (0.309 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,600 ft^3/s (782 m^3/s) July 10, 1950, gage height, 28.74 ft (8.760 m); maximum gage height, 29.80 ft (9.083 m) June 16, 1967; minimum daily discharge, 6.0 ft^3/s (0.17 m^3/s) Aug. 1, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,420 ft^3/s (96.9 m^3/s) June 3 at 1400, gage height, 17.35 ft (5.288 m), no other peak above base of 3,000 ft^3/s (85.0 m^3/s); minimum daily, 6.0 ft^3/s (0.17 m^3/s) Aug. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	1060	90	92	86	450	526	141	158	66	6.0	116
2	51	822	96	96	100	350	499	139	1650	115	7.0	97
3	51	697	100	100	110	310	840	138	3190	122	15	88
4	51	521	113	100	107	290	1030	135	1660	144	27	82
5	51	399	117	98	102	250	936	132	806	113	33	77
6	50	284	107	94	103	210	834	134	1360	96	29	73
7	51	225	100	90	107	206	698	132	1950	97	27	71
8	51	195	90	70	100	206	622	129	2000	130	18	67
9	51	180	102	60	98	319	454	125	2160	114	16	66
10	51	165	105	68	96	842	355	125	1710	82	24	63
11	49	151	100	55	94	1480	314	123	993	60	78	63
12	52	139	80	63	96	1540	279	124	540	51	577	61
13	53	129	86	94	98	1280	245	123	375	35	496	60
14	53	122	93	99	100	1030	217	120	307	29	347	58
15	53	116	90	106	106	913	203	119	264	35	295	57
16	55	112	60	116	108	860	193	130	233	22	402	59
17	55	110	70	127	100	782	194	141	211	19	1320	62
18	58	107	84	226	96	569	187	151	194	27	584	61
19	75	104	80	276	94	442	179	151	178	34	420	60
20	67	108	89	264	99	371	172	151	168	35	329	58
21	66	129	95	241	114	310	166	169	158	51	309	57
22	73	131	94	205	209	269	157	148	183	49	292	56
23	70	127	100	193	600	239	151	148	179	30	249	54
24	71	146	98	176	1400	214	147	144	157	21	215	53
25	71	172	97	158	1200	189	144	132	159	16	179	55
26	71	154	98	120	1000	180	141	123	162	16	153	54
27	71	139	103	100	800	174	143	116	128	31	132	53
28	72	120	101	90	640	186	142	110	106	48	121	53
29	73	100	101	90	560	282	143	107	80	46	117	54
30	199	110	109	80	---	671	143	110	78	39	100	55
31	1000	---	101	70	---	541	---	117	---	16	109	---
TOTAL	2918	7074	2949	3817	8523	15955	10454	4087	21497	1789	7026.0	1943
MEAN	94.1	236	95.1	123	294	515	348	132	717	57.7	227	64.8
MAX	1000	1060	117	276	1400	1540	1030	169	3190	144	1320	116
MIN	49	100	60	55	86	174	141	107	78	16	6.0	53
AC-FT	5790	14030	5850	7570	16910	31650	20740	8110	42640	3550	13940	3850

CAL YR 1979 TOTAL 206210.0 MEAN 565 MAX 7410 MIN 49 AC-FT 409000
WTR YR 1980 TOTAL 88032.0 MEAN 241 MAX 3190 MIN 6.0 AC-FT 174600

06881000 BIG BLUE RIVER NEAR CRETE, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961-63, 1968 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1961 to September 1962, April 1968 to current year.
SEDIMENT RECORDS: October 1961 to September 1962.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 33.5°C July 10, 1980; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 33.5°C July 10; minimum, 0.0°C on many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 12...	1520	53	663	8.5	16.0	35	12.1	13	15000	480
NOV 17...	1330	113	552	8.0	6.0	35	12.6	3.9	1830	400
DEC 13...	1245	79	723	8.0	1.5	15	12.8	4.5	K2200	820
JAN 24...	1015	183	535	7.5	1.0	75	11.6	14	4700	14000
FEB 11...	1320	93	667	7.7	2.0	8	13.6	3.0	3300	460
MAR 04...	1230	286	360	7.4	.5	90	11.7	16	K1000	6600
APR 14...	1245	219	570	7.7	9.5	100	10.6	1.0	800	7200
MAY 08...	1015	130	610	8.1	12.5	35	10.4	18	K640	800
JUN 23...	1200	181	550	8.0	24.0	60	9.2	15	K47000	7300
JUL 08...	1315	133	509	8.2	30.0	80	7.0	8.7	K2100	920
AUG 18...	1245	561	245	7.5	24.0	300	6.4	16	K38000	40000
SEP 09...	1320	65	620	8.4	22.5	55	8.9	9.5	K1800	300

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT 12...	30	414	.56	59.2	.73	.02	1.4	1.4	2.1	.680
NOV 17...	20	361	.49	110	2.3	.46	.84	1.3	3.6	.850
DEC 13...	24	484	.66	103	2.3	.57	2.0	2.6	4.9	.700
JAN 24...	17	344	.47	170	2.6	.57	1.2	1.8	4.4	.970
FEB 11...	19	426	.58	107	2.4	.46	.54	1.0	3.4	.700
MAR 04...	13	268	.36	207	2.2	1.1	2.2	3.3	5.5	.940
APR 14...	14	377	.51	223	2.2	.29	1.4	1.7	3.9	.890
MAY 08...	20	360	.49	126	.02	.01	2.4	2.4	2.4	.540
JUN 23...	12	360	.49	176	1.7	.11	2.4	2.5	4.2	.720
JUL 08...	17	326	.44	117	.21	.09	2.4	2.5	2.7	.930
AUG 18...	11	177	.24	268	3.3	.20	2.4	2.6	5.9	1.600
SEP 09...	27	397	.54	69.8	.65	.12	2.3	2.4	3.1	.930

KANSAS RIVER BASIN

06881000 BIG BLUE RIVER NEAR CRETE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLOR (PLAT-INUM COBALT UNITS) (00080)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
NOV											
17...	1330	50	220	20	65	14	35	1.0	13	200	71
FEB											
11...	1320	10	270	31	82	16	40	1.1	9.1	240	74
MAY											
08...	1015	20	230	16	64	16	43	1.2	9.3	210	72
AUG											
18...	1245	350	79	11	23	5.3	12	.6	14	68	24

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)
NOV										
17...	.3	28	378	2.3	.640	10	200	70	1	0
FEB										
11...	.2	29	425	2.5	.580	--	--	110	--	--
MAY										
08...	.4	10	361	.02	.210	5	100	80	<1	0
AUG										
18...	.3	11	155	3.1	.110	--	--	70	--	--

DATE	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG) (71895)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV										
17...	4	180	0	180	.1	.0	.1	3	0	10
FEB										
11...	--	20	--	320	--	--	--	--	--	--
MAY										
08...	8	20	0	110	.0	.0	.0	4	0	4
AUG										
18...	--	140	--	20	--	--	--	--	--	--

06881000 BIG BLUE RIVER NEAR CRETE, NE--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	22.5	18.5	12.0	11.5	1.5	.0	.5	.0	1.5	1.5	.5	.5
2	19.0	15.5	11.5	9.5	1.5	.0	.5	.0	2.0	1.5	.5	.5
3	18.5	16.5	10.0	9.0	2.0	.0	.5	.0	2.5	1.0	.5	.5
4	17.5	14.0	9.5	8.0	2.5	1.5	.5	.0	1.5	.5	.5	.5
5	15.5	13.0	9.5	8.5	2.0	1.0	.5	.0	2.0	1.0	.5	.5
6	16.5	13.0	8.5	7.0	2.5	.5	.5	.0	2.0	1.0	.5	.0
7	16.5	13.0	7.5	6.0	3.0	1.5	.0	.0	1.5	1.0	.5	.5
8	17.5	14.5	7.5	6.0	3.0	1.5	.0	.0	3.0	1.0	.5	.5
9	16.0	13.0	7.5	6.0	2.0	.5	.0	.0	1.5	.5	1.0	.5
10	14.0	11.0	6.0	3.5	4.0	2.0	1.5	.0	2.5	.5	1.0	.5
11	16.5	13.0	5.5	3.5	4.0	1.0	1.0	.0	2.5	.5	1.0	.5
12	16.5	14.5	6.0	4.5	2.0	.5	1.0	.0	2.0	.5	1.0	.5
13	14.5	10.0	4.5	2.5	8.5	.5	2.0	.0	2.0	.5	1.0	.5
14	13.5	9.5	5.0	3.5	2.0	.5	2.0	.5	1.0	1.0	2.5	1.0
15	14.0	11.5	6.0	3.5	2.0	.5	2.0	1.0	1.5	.5	3.5	1.5
16	15.5	13.5	6.5	4.0	.5	.5	1.5	.0	2.0	.5	3.0	1.0
17	16.0	14.0	6.5	4.5	.5	.5	1.5	.0	2.5	.5	3.0	1.0
18	16.0	14.0	8.0	6.0	1.0	.5	1.0	.5	2.0	.5	3.5	1.5
19	16.0	14.0	8.0	7.0	2.0	.5	1.5	.5	2.5	1.0	4.0	1.5
20	19.0	16.0	7.5	5.5	2.0	.5	1.0	.5	2.5	1.0	4.5	2.5
21	19.0	14.0	5.5	5.5	1.5	.5	1.5	1.0	1.5	1.0	5.0	3.0
22	14.0	9.5	5.5	3.0	1.0	.5	1.5	1.0	1.0	.5	4.5	3.0
23	10.5	7.5	3.0	1.5	1.0	1.0	1.5	.5	.5	.5	5.0	3.5
24	11.5	8.5	3.0	1.5	1.0	.5	2.0	1.0	.5	.0	5.5	4.0
25	11.5	10.0	3.0	2.0	1.0	.5	2.0	1.0	.5	.5	5.0	4.0
26	13.5	10.5	3.0	2.0	1.0	.0	1.0	1.0	.5	.5	4.0	3.5
27	14.0	12.0	3.5	3.0	1.5	.5	1.5	1.0	1.0	.5	4.0	3.5
28	13.5	10.5	3.5	.5	.5	.0	1.5	1.0	1.0	.5	5.5	3.5
29	13.0	10.5	.5	.0	1.0	.0	1.5	1.0	1.0	.5	5.5	5.0
30	13.0	12.5	1.5	.0	1.5	.5	1.5	1.0	---	---	5.5	4.0
31	12.5	11.5	---	---	.5	.0	2.0	1.0	---	---	8.0	5.0
MONTH	22.5	7.5	12.0	.0	8.5	.0	2.0	.0	3.0	.0	8.0	.0

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.0	6.5	16.5	14.0	24.5	19.0	31.0	26.5	30.0	21.0	26.0	23.0
2	7.0	6.5	17.0	14.0	24.5	19.5	29.0	24.0	30.0	23.0	25.5	21.0
3	6.5	6.0	17.0	14.5	21.5	19.5	27.5	23.5	29.5	22.5	26.5	22.0
4	6.5	5.0	16.5	13.5	23.0	21.5	29.0	26.0	27.5	23.0	26.0	22.0
5	7.5	6.0	17.0	13.0	26.5	23.0	29.0	26.0	26.0	22.0	26.0	21.0
6	10.5	8.0	18.0	13.5	26.0	25.0	32.0	27.5	30.0	22.5	28.0	23.5
7	11.5	10.0	17.0	13.0	25.5	25.0	32.5	28.0	31.0	25.5	27.5	24.0
8	11.5	10.5	14.5	12.5	25.5	24.0	32.5	29.0	31.0	25.0	27.5	24.0
9	11.0	9.0	14.0	10.5	25.0	23.0	33.0	28.5	30.5	24.5	27.0	21.0
10	12.5	9.5	14.0	10.0	24.0	22.0	33.5	29.0	30.0	24.5	21.0	17.5
11	12.0	9.5	15.5	12.0	24.5	22.5	32.0	28.0	28.0	23.5	22.0	19.0
12	12.0	9.0	12.5	10.0	25.0	23.0	30.0	25.5	27.0	24.0	26.5	21.0
13	11.0	8.5	13.0	10.0	27.0	23.0	30.5	23.5	27.0	23.5	25.0	21.5
14	10.0	8.0	15.0	11.5	28.5	25.5	31.5	24.0	27.0	24.5	23.0	19.5
15	12.0	8.0	17.0	13.0	28.5	25.5	31.5	26.5	24.5	22.0	22.0	18.5
16	12.0	10.0	18.0	13.5	27.0	23.0	31.0	24.5	25.0	21.5	21.5	16.5
17	10.5	9.0	16.0	12.0	25.5	21.5	31.5	23.0	25.0	21.5	17.5	13.5
18	13.5	9.5	15.0	11.5	27.5	23.5	28.5	24.5	26.5	24.0	20.0	15.5
19	16.5	11.0	16.5	12.0	27.5	24.0	30.5	24.5	27.5	25.0	23.5	18.5
20	18.5	14.0	17.0	13.5	23.5	20.5	29.5	25.5	27.5	26.0	24.5	20.5
21	19.5	16.0	18.0	13.5	26.5	22.0	29.5	24.5	27.0	23.5	23.0	18.5
22	20.5	16.5	18.5	14.0	26.0	23.5	29.0	23.0	26.5	23.5	22.5	18.5
23	20.0	16.5	20.0	16.0	27.5	23.0	29.0	22.5	26.0	22.5	19.5	16.0
24	18.0	13.5	23.5	18.5	29.0	24.5	29.5	22.5	27.0	23.5	19.0	15.5
25	15.5	12.5	25.0	20.0	29.5	26.5	27.5	22.5	28.0	25.0	19.0	16.0
26	15.0	12.0	26.0	21.5	32.0	27.5	28.0	21.0	28.0	25.5	17.0	13.5
27	13.0	11.0	26.5	22.5	31.5	28.0	28.0	21.0	27.5	22.5	19.0	15.5
28	16.0	11.5	26.5	22.0	31.0	27.0	29.5	23.5	25.5	22.0	19.0	16.0
29	17.0	13.0	27.0	23.0	29.5	24.5	30.0	25.0	26.5	23.0	18.5	17.0
30	17.0	14.0	26.0	21.0	29.0	24.5	28.5	24.0	26.0	23.0	19.0	15.0
31	---	---	24.0	20.0	---	---	26.0	22.0	26.0	22.5	---	---
MONTH	20.5	5.0	27.0	10.0	32.0	19.0	33.5	21.0	31.0	21.0	28.0	13.5

06881200 TURKEY CREEK NEAR WILBER, NE

LOCATION.--Lat 40°28'48", long 97°00'43", in NE1/4NE1/4 sec.19, T.6 N., R.4 E., Saline County, Hydrologic Unit 10270204, on left bank near downstream side of bridge on State Highway 41, 2.8 mi (4.5 km) west of Wilber.

DRAINAGE AREA.--460 mi² (1,191 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1959 to current year.

REVISED RECORDS.--WSP 1919: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,322.00 ft (402.946 m) National Geodetic Vertical Datum of 1929. Prior to July 10, 1970 at site 0.2 mi (0.3 km) downstream at same datum.

REMARKS.--Records fair except those for winter period, which are poor. Many diversions above station for irrigation.

AVERAGE DISCHARGE.--21 years, 79.9 ft³/s (2.263 m³/s), 57,890 acre-ft/yr (71.4 hm³/yr); median of yearly mean discharges, 62 ft³/s (1.756 m³/s), 44,900 acre-ft/yr (55.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,300 ft³/s (207 m³/s) Mar. 28, 1960, gage height, 14.92 ft (4.548 m) site then in use; maximum gage height, 17.92 ft (5.462 m) Oct. 12, 1973, from high-water mark; no flow Sept. 20, 21, 24, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,040 ft³/s (29.5 m³/s) sometime during period June 2-5, gage height, 11.70 ft (3.566 m), from floodmark, no other peak above base of 1,000 ft³/s (28.3 m³/s); minimum daily, 0.26 ft³/s (0.007 m³/s) Sept. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	359	6.1	5.8	9.0	110	672	18	100	6.5	9.6	5.6
2	2.2	258	6.9	6.0	10	90	578	18	620	10	9.0	3.9
3	1.8	219	7.4	6.2	9.6	66	585	18	1020	265	9.3	1.6
4	1.6	134	7.1	6.5	10	66	663	17	988	420	8.9	.76
5	1.5	75	6.8	6.4	11	50	698	17	851	144	9.5	1.0
6	1.4	53	6.6	6.0	8.8	36	491	16	246	83	9.7	1.0
7	1.7	51	6.4	5.8	8.4	33	218	16	119	45	8.5	.84
8	1.8	32	6.0	5.4	8.0	43	118	15	75	30	8.6	.85
9	1.6	21	5.7	4.5	7.0	54	74	16	54	23	7.7	.66
10	1.6	15	8.1	4.7	7.7	225	53	16	42	18	8.0	.60
11	1.8	12	8.4	6.0	6.8	591	46	15	46	15	11	.52
12	1.8	10	5.0	6.0	6.0	576	43	14	43	14	13	.51
13	1.7	9.2	5.2	7.0	7.1	518	40	13	35	11	11	.51
14	2.2	9.2	6.7	9.8	6.2	339	34	13	21	11	6.9	.51
15	2.4	8.4	6.5	11	6.2	214	31	12	19	17	13	.43
16	2.9	8.0	5.2	14	5.8	207	30	13	17	19	23	.43
17	2.3	7.1	5.2	13	5.4	161	29	16	18	17	162	.43
18	2.5	6.8	6.3	14	6.0	113	29	19	17	12	123	.43
19	2.9	6.5	5.5	16	5.5	80	30	20	17	11	85	.34
20	4.7	6.8	6.3	18	5.5	56	28	16	16	9.6	56	.34
21	3.4	12	7.7	21	7.7	39	25	16	16	9.7	56	.40
22	3.2	20	7.0	14	24	30	23	16	16	9.0	43	.43
23	4.1	26	6.8	14	80	26	22	14	16	9.1	33	.34
24	5.8	20	6.6	19	360	22	21	13	15	7.9	18	.34
25	8.1	15	7.4	19	340	21	20	12	15	7.0	12	.34
26	8.0	12	7.2	16	350	20	20	12	13	12	9.2	.34
27	5.3	11	7.0	13	240	21	20	11	11	11	6.6	.26
28	4.2	8.1	5.0	10	170	22	20	11	12	11	5.1	.32
29	4.4	7.8	3.3	11	150	55	19	11	9.2	12	4.0	.48
30	20	7.4	7.7	9.0	---	367	19	11	7.9	9.9	3.6	.51
31	300	---	7.1	6.0	---	584	---	19	---	9.7	3.2	---
TOTAL	410.0	1440.3	200.2	324.1	1871.7	4835	4699	464	4495.1	1289.4	786.4	25.02
MEAN	13.2	48.0	6.46	10.5	64.5	156	157	15.0	150	41.6	25.4	.83
MAX	300	359	8.4	21	360	591	698	20	1020	420	162	5.6
MIN	1.4	6.5	3.3	4.5	5.4	20	19	11	7.9	6.5	3.2	.26
AC-FT	813	2860	397	643	3710	9590	9320	920	8920	2560	1560	50

CAL YR 1979 TOTAL 47786.60 MEAN 131 MAX 3290 MIN 1.4 AC-FT 94780
WTR YR 1980 TOTAL 20840.22 MEAN 56.9 MAX 1020 MIN .26 AC-FT 41340

06881200 TURKEY CREEK NEAR WILBER, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966-70, 1973 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 12...	1430	1.6	1490	8.2	16.0	20	10.3	3.2	1200	620
NOV 17...	1130	7.0	560	7.3	5.0	110	10.5	2.8	970	K3500
DEC 13...	1100	5.3	658	7.8	.0	--	12.8	1.7	K43	190
JAN 24...	0930	21	420	7.4	.5	85	14.1	7.3	K154	7200
FEB 11...	1215	7.3	682	7.6	1.0	9	12.7	2.6	K33	K20
MAR 04...	1130	66	210	7.3	.0	170	10.6	5.6	K140	K770
APR 14...	1115	34	480	7.7	8.5	110	10.4	2.6	K200	560
MAY 08...	0915	14	640	7.6	12.0	40	9.1	5.8	K70	310
JUN 23...	1100	15	552	7.8	24.0	60	7.5	9.0	1300	4500
JUL 08...	1015	30	319	7.3	26.5	280	5.9	3.4	2800	K8300
AUG 18...	1145	94	155	7.3	22.5	600	6.6	7.4	K90000	K84000
SEP 09...	1150	.55	1450	7.7	21.5	35	11.9	4.2	1100	420

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)
OCT 12...	340	906	1.23	3.91	1.2	.05	.85	.90	2.1	.240
NOV 17...	79	337	.46	6.37	1.8	.28	1.4	1.7	3.5	.650
DEC 13...	75	442	.60	6.33	1.1	.08	.83	.91	2.0	.430
JAN 24...	29	285	.39	16.2	1.8	.57	1.9	2.5	4.3	.010
FEB 11...	57	414	.56	8.16	1.1	.28	.59	.87	2.0	.390
MAR 04...	13	155	.21	27.6	1.9	.90	2.1	3.0	4.9	.830
APR 14...	19	312	.42	28.6	.81	.22	1.5	1.7	2.5	.580
MAY 08...	38	386	.53	15.0	.16	.10	1.1	1.2	1.4	.400
JUN 23...	35	344	.47	14.7	.08	.08	1.7	1.8	1.9	.570
JUL 08...	18	246	.33	20.3	9.4	.08	3.0	3.1	13	.790
AUG 18...	4.4	124	.17	31.8	3.2	.40	5.8	6.2	9.4	1.700
SEP 09...	310	762	1.04	1.14	2.8	.00	1.5	1.5	4.3	.440

06881200 TURKEY CREEK NEAR WILBER, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	COLOR (PLAT-INUM COBALT UNITS) (00080)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
NOV 17...	1130	90	120	0	32	8.5	73	3.0	12	120	40
FEB 11...	1215	10	230	41	71	13	57	1.6	7.4	190	60
MAY 08...	0915	20	230	20	69	14	47	1.3	9.0	210	61
AUG 18...	1145	250	46	7	13	3.2	8.2	.5	11	39	10

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)
NOV 17...	.2	22	349	1.8	.390	4	100	90	2	0
FEB 11...	.2	27	412	1.1	.330	--	--	60	--	--
MAY 08...	.4	17	383	.16	.250	5	200	80	<1	0
AUG 18...	.3	8.6	97	3.2	.120	--	--	50	--	--

DATE	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG) (71895)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV 17...	11	710	4	180	.2	.0	.2	2	0	30
FEB 11...	--	20	--	200	--	--	--	--	--	--
MAY 08...	7	30	0	110	.1	.1	.0	3	0	10
AUG 18...	--	150	--	10	--	--	--	--	--	--

06881500 BIG BLUE RIVER AT BEATRICE, NE

LOCATION.--Lat 40°15'22", long 96°44'47", in SW1/4NW1/4 sec.3, T.3 N., R.6 E., Gage County, Hydrologic Unit 10270202, at left upstream corner of 6th Street and U.S. Highway 77 bridge in Beatrice, 0.7 mi (1.1 km) south of the intersection of U.S. Highways 136 and 77, 1.2 mi (1.9 km) downstream from Indian Creek, and 3.1 mi (5.0 km) upstream from Bear Creek.

DRAINAGE AREA.--3,900 mi² (10,101 km²), of which about 3,830 mi² (9,920 km²) contributes directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1910 to September 1915, (monthly discharge only for some periods, published in WSP 1310), 1954, 1960-65, 1967-69, 1971-74 (discharge measurements only), October 1974 to current year. Gage-height records collected 1905-10, 1916-74 are in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder. Datum of gage is 1,219.90 ft (371.826 m) National Geodetic Vertical Datum of 1929. October 1910 to September 1915 non-recording gage at present site and datum.

REMARKS.--Records good except those for winter period, which are poor.

AVERAGE DISCHARGE.--11 years (water years 1911-15, 1975-80), 609 ft³/s (17.25 m³/s), 441,200 acre-ft/yr (0.544 km³/yr); median of yearly mean discharges, 500 ft³/s (14.16 m³/s), 362,000 acre-ft/yr (0.446 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,000 ft³/s (935 m³/s) July 23, 1911, gage height, 26.00 ft (7.925 m); minimum daily, 20 ft³/s (0.57 m³/s) Aug. 15, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since 1902, 49,100 ft³/s (1,390 m³/s) Oct. 12, 1973, gage height, 33.02 ft (10.064 m), from floodmark.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,000 ft³/s (113 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 30	2200	*5570	158	12.11	3.691	June 4	0900	5340	151	11.81	3.600
Apr. 3	1300	4760	135	11.08	3.377						

Minimum daily discharge, 33 ft³/s (0.93 m³/s) July 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	102	2310	130	128	110	1000	2550	250	1280	138	52	185
2	95	1660	140	115	130	900	1960	254	1750	366	45	172
3	96	1240	160	100	150	800	3970	243	3780	383	42	160
4	91	1020	180	100	160	600	3620	243	5100	443	53	142
5	92	759	140	100	150	450	2500	239	3260	594	52	130
6	94	590	128	98	150	400	2080	235	1900	350	74	125
7	93	440	122	96	150	390	1640	232	1700	277	81	122
8	95	361	112	88	150	350	1200	226	2210	225	61	113
9	99	304	112	76	140	430	1000	221	2250	202	61	110
10	100	264	109	90	150	1700	785	221	2350	198	63	101
11	102	245	109	82	145	2300	651	221	1950	166	83	101
12	102	230	93	90	145	2650	607	218	1230	125	72	114
13	99	214	96	114	145	2510	546	217	755	107	273	106
14	102	205	100	120	150	2290	482	215	536	99	570	99
15	101	199	104	141	145	2010	434	215	428	85	447	96
16	100	193	70	161	140	1650	400	239	367	65	477	94
17	102	192	100	175	130	1430	386	248	330	65	1460	94
18	105	192	130	206	140	1220	302	255	303	71	1860	96
19	109	188	116	302	150	940	304	253	282	59	1140	97
20	108	205	120	443	165	731	371	259	262	48	735	98
21	117	264	130	421	190	598	352	246	253	55	542	96
22	120	477	165	404	560	500	334	245	256	42	464	90
23	113	349	141	305	860	427	317	248	264	33	438	85
24	112	278	132	258	1300	381	298	237	269	50	375	85
25	109	258	128	220	2900	341	288	235	251	52	321	87
26	110	263	122	130	2500	317	286	225	227	98	265	83
27	114	262	122	110	2100	305	278	213	236	84	228	84
28	116	234	125	100	1550	329	272	204	207	62	210	84
29	114	200	132	106	1200	524	265	199	180	49	196	84
30	256	175	128	90	---	3610	250	197	158	46	185	85
31	1980	---	125	80	---	4850	---	286	---	54	173	---
TOTAL	5248	13771	3829	5049	16055	36933	28880	7239	34324	4691	11098	3218
MEAN	169	459	124	163	554	1191	963	234	1144	151	358	107
MAX	1980	2310	180	443	2900	4850	3970	286	5100	594	1860	185
MIN	91	175	70	76	110	305	250	197	158	33	42	83
AC-FT	10410	27310	7590	10010	31850	73260	57300	14360	68080	9300	22010	6380

CAL YR 1979 TOTAL 421675 MEAN 1155 MAX 13500 MIN 70 AC-FT 836400
WTR YR 1980 TOTAL 170343 MEAN 465 MAX 5100 MIN 33 AC-FT 337900

06881500 BIG BLUE RIVER AT BEATRICE, NE--Continued

WATER QUALITY RECORDS

PERICD OF RECORD.--Water year 1978 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPERATURE, WATER (DEG C) (00010)	TURBIDITY (JTU) (00070)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L) (00310)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT										
15...	1530	99	785	8.8	13.0	30	14.7	15	K142	K83
NOV										
20...	0850	200	675	8.0	7.0	45	10.6	8.6	2700	1000
DEC										
12...	0820	104	715	7.8	.0	--	13.7	4.2	1000	K130
JAN										
22...	1645	401	520	7.7	1.5	90	13.8	9.2	1700	K18000
FEB										
13...	0930	154	788	7.7	.0	5	12.4	5.4	K100	K120
MAR										
05...	1730	403	360	7.5	.0	80	12.8	8.8	K46	260
31...	1600	4490	215	7.8	7.0	700	10.1	12	K11000	120000
APR										
15...	0900	440	580	7.3	8.0	100	10.2	1.5	730	2700
MAY										
07...	0900	230	670	8.2	17.5	15	9.7	10	K130	4500
JUN										
05...	1130	3240	160	7.2	21.0	1400	5.8	9.4	K33000	50000
17...	1645	325	460	7.9	25.5	70	7.0	10	1200	960
JUL										
08...	1730	225	450	7.6	32.0	220	6.0	13	1300	K1700
AUG										
19...	1120	1170	235	7.7	23.0	440	5.6	15	21000	12000
SEP										
11...	1000	99	727	8.6	20.0	30	9.3	8.6	210	K2500

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)
OCT										
15...	73	483	.66	129	.61	.08	2.9	3.0	3.6	.730
NOV										
20...	48	411	.56	222	3.0	.34	1.3	1.6	4.6	.760
DEC										
12...	51	474	.64	133	2.8	.16	1.4	1.6	4.4	.890
JAN										
22...	28	356	.48	385	2.5	.46	1.0	1.5	4.0	.950
FEB										
13...	55	492	.67	205	3.2	.71	--	--	--	.780
MAR										
05...	21	269	.37	293	2.2	1.1	1.2	2.3	4.5	.710
31...	10	--	--	--	.01	.77	10	11	11	1.500
APR										
15...	26	346	.47	411	2.1	.26	1.3	1.6	3.7	.670
MAY										
07...	48	356	.48	221	--	.01	2.1	2.1	--	.520
JUN										
05...	3.3	--	--	--	4.7	.88	10	11	16	1.800
17...	27	300	.41	263	1.9	.05	1.7	1.7	3.6	.790
JUL										
08...	33	289	.39	176	4.1	.22	2.5	2.7	6.8	.770
AUG										
19...	9.4	--	--	--	1.9	.12	3.5	3.6	5.5	1.400
SEP										
11...	69	512	.70	137	.05	.03	2.4	2.4	2.5	.840

06881500 BIG BLUE RIVER AT BEATRICE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N) (00607)	NITROGEN,NH4 + ORG. SUSP. TOTAL (MG/L AS N) (00624)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITROGEN, DISSOLVED (MG/L AS N) (00602)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC SUSPENDED TOTAL (UG/L AS AS) (01001)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)
NOV 20...	3.0	--	--	--	--	--	.720	--	--	5	100
FEB 13...	3.2	--	--	--	--	--	.680	--	--	--	--
MAR 31...	.00	.00	--	--	--	--	.250	10	6	4	--
MAY 07...	1.4	--	--	--	--	--	.200	--	--	5	100
JUN 05...	4.7	.42	1.7	8.9	2.1	7.6	.670	27	22	5	--
AUG 19...	1.3	.12	1.4	2.1	1.5	2.8	.500	10	5	5	--

DATE	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM SUSPENDED RECOVERABLE (UG/L AS CD) (01026)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, SUSPENDED RECOV. (UG/L AS CR) (01031)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COBALT, SUSPENDED RECOVERABLE (UG/L AS CO) (01036)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)
NOV 20...	70	--	--	<1	--	--	0	--	--	--	--
FEB 13...	80	--	--	--	--	--	--	--	--	--	--
MAR 31...	70	1	1	0	40	40	0	13	13	0	36
MAY 07...	80	--	--	<1	--	--	0	--	--	--	--
JUN 05...	100	1	--	--	70	70	0	21	13	8	75
AUG 19...	110	1	1	0	20	10	10	9	8	1	29

DATE	COPPER, SUSPENDED RECOVERABLE (UG/L AS CU) (01041)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, SUSPENDED RECOVERABLE (UG/L AS FE) (01044)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, SUSPENDED RECOVERABLE (UG/L AS PB) (01050)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, SUSPENDED RECOV. (UG/L AS MN) (01054)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
NOV 20...	--	4	--	--	70	--	--	0	--	--	130
FEB 13...	--	--	--	--	20	--	--	--	--	--	330
MAR 31...	24	12	3500	3200	340	81	80	1	900	840	60
MAY 07...	--	7	--	--	50	--	--	0	--	--	20
JUN 05...	28	47	70000	68000	1800	69	47	22	1900	1600	280
AUG 19...	19	10	23000	23000	110	33	30	3	890	880	10

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY SUSPENDED RECOVERABLE (UG/L AS HG) (71895)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, SUSPENDED TOTAL (UG/L AS SE) (01146)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, SUSPENDED RECOVERABLE (UG/L AS ZN) (01091)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
NOV 20...	.1	.1	.0	--	--	3	0	--	--	8	--
FEB 13...	--	--	--	--	--	--	--	--	--	--	--
MAR 31...	.3	.0	.3	1	0	1	0	160	110	50	42
MAY 07...	.2	.2	.0	--	--	3	0	--	--	6	--
JUN 05...	.4	.0	.4	3	0	3	0	320	240	80	93
AUG 19...	1.5	1.3	.2	2	1	1	0	140	130	10	33

06881500 BIG BLUE RIVER AT BEATRICE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	PERTHANE TOTAL (UG/L) (39034)	PCB, TOTAL (UG/L) (39516)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG) (39519)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L) (39250)	ALDRIN, TOTAL (UG/L) (39330)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39333)	CHLORDANE, TOTAL (UG/L) (39350)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39351)	DDD, TOTAL (UG/L) (39360)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG) (39363)	DDE, TOTAL (UG/L) (39365)
NOV 20...	0850	--	--	0	--	--	.0	--	0	--	.0	--
FEB 13...	0930	--	--	0	--	--	.0	--	0	--	.0	--
MAR 31...	1600	.00	.0	--	.00	.00	--	.0	--	.00	--	.00
MAY 07...	0900	--	--	0	--	--	.0	--	0	--	.0	--
JUN 05...	1130	.00	.0	--	.00	.00	--	.0	--	.00	--	.00
AUG 19...	1120	.00	.0	--	.00	.00	--	.0	--	.00	--	.00
SEP 11...	1000	--	--	0	--	--	.0	--	0	--	.2	--

DATE	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39368)	DDT, TOTAL (UG/L) (39370)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG) (39373)	DIAZINON, TOTAL (UG/L) (39570)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG) (39571)	DIELDRIN TOTAL (UG/L) (39380)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39383)	ENDOSULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39393)	ETHION, TOTAL (UG/L) (39398)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG) (39399)
NOV 20...	.0	--	.0	--	.0	--	.2	--	--	.0	--	.0
FEB 13...	.0	--	.0	--	.0	--	.0	--	--	.0	--	.0
MAR 31...	--	.00	--	.00	--	.00	--	.00	.00	--	.00	--
MAY 07...	.0	--	.0	--	.0	--	.0	--	--	.0	--	.0
JUN 05...	--	.00	--	.00	--	.01	--	.00	.00	--	.00	--
AUG 19...	--	.00	--	.02	--	.00	--	.00	.00	--	.00	--
SEP 11...	.2	--	.2	--	.0	--	.0	--	--	.0	--	.0

DATE	HEPTACHLOR, TOTAL (UG/L) (39410)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG) (39413)	HEPTACHLOR EPOXIDE TOTAL (UG/L) (39420)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE TOTAL (UG/L) (39340)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG) (39343)	MALATHION, TOTAL (UG/L) (39530)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG) (39531)	METHOXYCHLOR, TOTAL (UG/L) (39480)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)	METHYL PARATHION, TOTAL (UG/L) (39600)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG) (39601)
NOV 20...	--	.0	--	.0	--	.0	--	.0	--	.0	--	.0
FEB 13...	--	.0	--	.0	--	.0	--	.0	--	.0	--	.0
MAR 31...	.00	--	.00	--	.00	--	.00	--	.00	--	.00	--
MAY 07...	--	.0	--	.0	--	.0	--	.0	--	.0	--	.0
JUN 05...	.00	--	.00	--	.00	--	.00	--	.00	--	.00	--
AUG 19...	.00	--	.00	--	.00	--	.00	--	.00	--	.00	--
SEP 11...	--	.0	--	.0	--	.0	--	.0	--	.0	--	.0

DATE	METHYL TRITHION, TOTAL (UG/L) (39790)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG) (39791)	PARATHION, TOTAL (UG/L) (39540)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG) (39541)	TOXAPHENE, TOTAL (UG/L) (39400)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39403)	TOTAL TRITHION (UG/L) (39786)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG) (39787)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	MIREX, TOTAL (UG/L) (39755)	SILVEX, TOTAL (UG/L) (39760)
NOV 20...	--	.0	--	.0	--	0	--	.0	--	--	--	--
FEB 13...	--	.0	--	.0	--	0	--	.0	--	--	--	--
MAR 31...	.00	--	.00	--	0	--	.00	--	.12	.00	.00	.00
MAY 07...	--	.0	--	.0	--	0	--	.0	--	--	--	--
JUN 05...	.00	--	.00	--	0	--	.00	--	.02	.01	.00	.00
AUG 19...	.00	--	.03	--	0	--	.00	--	.00	.00	.00	.00
SEP 11...	--	.0	--	.0	--	0	--	.0	--	--	--	--

06881500 BIG BLUE RIVER AT BEATRICE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE, WATER (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)
MAR 31...	1600	4490	7.0	2250	27300	51	51	86	99	99	100
JUN 05...	1130	3240	21.0	3280	28700	62	98	98	99	99	100
AUG 19...	1120	1170	23.0	1120	3540	22	68	84	100	--	--

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	NUMBER OF SAM-PLING POINTS (00063)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)
MAR 31...	1600	4490	4	--	0	1	32
JUN 05...	1130	3240	3	0	1	3	13
AUG 19...	1120	1170	3	--	0	3	14

DATE	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)
MAR 31...	90	99	100	--	--	--
JUN 05...	58	82	87	98	99	100
AUG 19...	52	78	97	100	--	--

06882000 BIG BLUE RIVER AT BARNESTON, NE

LOCATION.--Lat 40°02'40", long 96°35'12", in NE1/4NW1/4 sec.24, T.1 N., R.7 E., Gage County, Hydrologic Unit 10270202, on right bank at right downstream end of bridge on State Highway 8, 0.6 mi (1.0 km) southwest of Barneston, 1.3 mi (2.1 km) upstream from Plum Creek, and 4.3 mi (6.9 km) upstream from Nebraska-Kansas State line.

DRAINAGE AREA.--4,447 mi² (11,518 km²) (revised), of which about 4,370 mi² (11,318 km²) contributes directly to surface runoff.

PERIOD OF RECORD.--May 1932 to current year.

REVISED RECORDS.--WSP 896: 1932, 1935. WSP 1919: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,162.2 ft (354.24 m) National Geodetic Vertical Datum of 1929. Prior to June 9, 1941, water-stage recorder at site 0.3 mi (0.5 km) downstream at datum 1.56 ft (0.475 m) higher. June 9 to Nov. 17, 1941, nonrecording gage and Nov. 18, 1941 to Sept. 30, 1979, water-stage recorder at site 0.7 mi (1.1 km) upstream at datum 2.0 ft (0.61 m) higher.

REMARKS.--Records fair except those for winter period, which are poor. Low flow regulated by powerplant 0.7 mi (1.1 km) upstream prior to July 1978. No large tributaries between station and Nebraska-Kansas State line. Some pump diversions for irrigation above station. Natural flow of stream affected by ground-water withdrawals for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--48 years, 782 ft³/s (22.15 m³/s), 566,600 acre-ft/yr (0.699 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 57,700 ft³/s (1,630 m³/s) June 9, 1941, gage height, 34.3 ft (10.45 m); minimum daily, 1 ft³/s (0.028 m³/s) Nov. 30, 1945.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 14,400 ft³/s (408 m³/s) probably occurred Mar. 31, gage height, 20.00 ft (6.096 m), from floodmark, no other peak above base of 10,000 ft³/s (283 m³/s); minimum daily, 60 ft³/s (1.70 m³/s) July 31 to Aug. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	125	2600	160	170	170	1200	4500	326	2940	202	60	179
2	122	1900	190	217	220	1040	3500	319	4190	217	60	179
3	118	1400	230	175	220	900	5000	310	4110	641	62	177
4	118	1150	280	170	230	700	4200	306	5320	400	64	170
5	118	900	333	134	240	540	3000	313	3940	777	66	153
6	115	740	289	135	220	420	2300	302	2350	529	76	146
7	113	560	247	134	220	430	1900	288	1610	370	87	137
8	110	430	230	104	220	420	1450	281	2060	272	96	129
9	101	360	214	157	200	800	1200	276	2190	233	94	121
10	101	320	220	194	270	2000	1000	277	2210	208	85	112
11	101	290	190	182	250	2600	860	271	2040	196	80	110
12	103	270	160	147	245	3000	760	268	1400	179	98	108
13	101	250	170	172	240	2800	700	271	897	165	101	111
14	103	240	180	209	245	2600	600	262	635	159	322	119
15	110	230	166	200	200	2300	540	261	512	133	508	113
16	122	220	120	251	190	2000	525	275	439	110	619	113
17	120	220	140	274	180	1700	513	319	400	78	1020	111
18	130	220	192	259	210	1380	514	318	367	74	1730	106
19	130	225	239	413	220	1100	512	320	341	74	1310	111
20	125	230	264	494	230	868	493	315	327	72	778	129
21	128	300	209	491	300	714	469	386	316	72	570	129
22	154	560	258	442	800	600	441	328	363	78	461	116
23	143	420	179	378	1140	560	414	321	334	78	434	115
24	168	330	230	367	1600	520	387	307	330	78	381	116
25	143	280	225	359	3200	483	374	292	323	76	324	111
26	140	290	241	313	2800	470	366	289	295	78	270	106
27	122	290	212	205	2400	450	351	275	282	74	221	104
28	130	270	190	185	1800	480	346	260	265	72	202	103
29	143	230	158	190	1450	700	339	252	233	70	194	108
30	200	200	160	160	---	3000	331	239	205	64	188	108
31	1600	---	150	140	---	8000	---	648	---	60	181	---
TOTAL	5357	15925	6426	7421	19910	44775	37885	9475	41224	5889	10742	3750
MEAN	173	531	207	239	687	1444	1263	306	1374	190	347	125
MAX	1600	2600	333	494	3200	8000	5000	648	5320	777	1730	179
MIN	101	200	120	104	170	420	331	239	205	60	60	103
AC-FT	10630	31590	12750	14720	39490	88810	75140	18790	81770	11680	21310	7440

CAL YR 1979 TOTAL 547160 MEAN 1499 MAX 23800 MIN 101 AC-FT 1085000
WTR YR 1980 TOTAL 208779 MEAN 570 MAX 8000 MIN 60 AC-FT 414100

06883000 LITTLE BLUE RIVER NEAR DEWEESE, NE

LOCATION.--Lat 40°19'58", long 98°04'00", in SW1/4NW1/4 sec.12, T.4 N., R.7 W., Nuckolls County, Hydrologic Unit 10270206, on right bank 10 ft (3 m) downstream from bridge on State Highway 14, 1 mi (2 km) upstream from Walnut Creek, 3.2 mi (5.1 km) southeast of Deweese, and 6 mi (10 km) northwest of Angus.

DRAINAGE AREA.--979 mi² (2,536 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1953 to September 1972, October 1974 to current year.

REVISED RECORDS.--WSP 1919: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,632.67 ft (497.638 m) National Geodetic Vertical Datum of 1929. Prior to May 16, 1957, non-recording gage at present site and datum; May 16, 1957, to Sept. 30, 1972, at site 1,500 ft (460 m) upstream at present datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation development above station.

AVERAGE DISCHARGE.--25 years (water years 1954-72, 1975-80), 143 ft³/s (4.050 m³/s), 103,600 acre-ft/yr (0.128 km³/yr); median of yearly mean discharges, 117 ft³/s (3.313 m³/s), 84,800 acre-ft/yr (0.105 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,100 ft³/s (711 m³/s) Aug. 31, 1969, gage height, 18.57 ft (5.660 m), at previous site; minimum daily, 6.3 ft³/s (0.18 m³/s) Sept. 7, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 26, 1951, reached a stage of 14.9 ft (4.54 m), from information by local residents, discharge, 16,000 ft³/s (453 m³/s), based on records for former station at Angus.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft³/s (42.5 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 3	1230	*2060	58.3	6.38	1.945
June 2	1000	1660	47.0	5.76	1.756

Minimum daily discharge, 7.9 ft³/s (0.22 m³/s) Aug. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	288	60	52	42	80	640	73	86	29	12	19
2	37	156	69	52	58	82	679	72	918	186	12	18
3	39	106	68	55	64	84	1680	73	1130	144	11	16
4	38	79	53	51	72	88	1370	72	692	76	11	15
5	40	69	52	52	80	86	916	73	309	114	11	16
6	40	61	50	40	74	100	448	73	215	76	18	16
7	40	58	49	40	70	123	278	71	150	58	10	16
8	40	57	47	42	66	121	208	68	110	44	8.6	17
9	39	56	49	44	60	139	162	68	88	40	10	19
10	40	54	49	48	66	299	144	70	81	37	7.9	20
11	41	55	47	50	72	244	132	67	76	34	124	21
12	41	52	42	50	72	237	120	66	74	32	89	22
13	41	53	44	56	70	189	111	66	72	27	46	22
14	42	54	44	58	66	183	106	65	71	24	37	24
15	43	55	46	59	64	235	100	65	67	24	29	27
16	43	53	40	68	60	404	96	77	64	21	56	26
17	43	54	52	66	68	256	93	91	61	16	58	26
18	44	53	60	65	76	219	86	83	62	16	65	27
19	46	53	54	68	84	172	83	76	60	17	44	27
20	44	57	50	65	100	130	81	73	60	20	30	27
21	47	62	50	64	353	109	79	71	60	22	22	27
22	50	59	49	62	559	93	76	68	63	20	18	28
23	48	54	49	65	533	82	76	65	57	18	17	28
24	48	53	48	63	350	72	74	64	53	17	17	30
25	47	52	48	62	321	69	75	64	52	16	14	31
26	48	51	49	50	250	69	75	63	51	16	15	30
27	48	51	49	42	170	69	75	60	48	14	16	31
28	49	50	49	40	120	82	75	59	44	16	15	32
29	51	45	52	40	98	215	74	61	38	12	13	33
30	323	54	51	38	---	427	74	57	32	10	11	33
31	632	---	51	36	---	602	---	66	---	11	19	---
TOTAL	2209	2054	1570	1643	4138	5360	8286	2140	4944	1207	866.5	724
MEAN	71.3	68.5	50.6	53.0	143	173	276	69.0	165	38.9	28.0	24.1
MAX	632	288	69	68	559	602	1680	91	1130	186	124	33
MIN	37	45	40	36	42	69	74	57	32	10	7.9	15
AC-FT	4380	4070	3110	3260	8210	10630	16440	4240	9810	2390	1720	1440

CAL YR 1979 TOTAL 69540.0 MEAN 191 MAX 3710 MIN 34 AC-FT 137900
WTR YR 1980 TOTAL 35141.5 MEAN 96.0 MAX 1680 MIN 7.9 AC-FT 69700

06883000 LITTLE BLUE RIVER NEAR DEWEESE, NE--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959-70, 1975 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 508 micromhos Feb. 14, 1980; minimum daily, 82 micromhos May 4, 1979.
WATER TEMPERATURES: Maximum, 28.0°C Aug. 8, 9, 10, 1980; minimum, 1.0°C Jan. 29, 30, 31, Feb. 1, 1980.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 508 micromhos Feb. 14; minimum daily, 125 micromhos Apr. 4.
WATER TEMPERATURES: Maximum, 28.0°C Aug. 8, 9, 10; minimum, 1.0°C Jan. 29, 30, 31, Feb. 1.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPERATURE, WATER (DEG C) (00010)	COLOR (PLATINUM COBALT UNITS) (00080)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)
OCT										
23...	1715	48	440	8.1	13.0	5	140	160	190	15
NOV										
19...	1715	53	450	8.0	11.0	5	K62	140	200	9
DEC										
17...	1645	52	470	7.8	.0	5	K56	K19	240	29
JAN										
15...	1645	58	440	7.8	5.5	5	K20	K65	200	11
FEB										
25...	1730	290	180	7.2	3.0	300	700	28000	64	3
MAR										
24...	1645	73	450	7.4	9.5	10	K6	K13	180	12
APR										
21...	1700	77	470	7.8	25.0	5	K2000	160	210	28
MAY										
20...	1630	72	475	7.8	25.0	0	K94	K94	210	18
JUN										
19...	1745	59	450	7.2	22.0	10	300	250	190	14
JUL										
15...	1700	27	395	8.3	32.0	40	--	250	180	4
AUG										
26...	1645	16	420	8.6	30.5	10	--	250	170	4
SEP										
23...	1750	30	440	8.1	20.0	6	K410	K88	200	15

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)
OCT										
23...	62	9.7	17	.5	8.2	180	45	12	.3	32
NOV										
19...	63	10	18	.6	8.2	190	42	11	.3	32
DEC										
17...	76	12	21	.6	7.7	210	45	14	.3	38
JAN										
15...	64	10	19	.6	7.0	190	36	11	.3	39
FEB										
25...	19	3.9	6.7	.4	14	61	10	5.9	.2	17
MAR										
24...	58	9.1	14	.5	8.4	170	36	12	.3	29
APR										
21...	65	11	21	.6	8.6	180	43	11	.5	--
MAY										
20...	65	11	18	.5	8.2	190	42	13	.3	27
JUN										
19...	61	10	17	.5	9.0	180	37	11	.4	29
JUL										
15...	58	9.5	17	.5	11	180	30	11	.7	29
AUG										
26...	54	9.5	17	.6	9.0	170	30	10	.4	28
SEP										
23...	60	11	17	.5	8.9	180	34	11	.4	29

06883000 LITTLE BLUE RIVER NEAR DEWEESE, NE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
OCT 23...	298	.41	38.6	.82	--	.260	40	<10	30
NOV 19...	304	.41	43.5	1.2	.280	.260	40	10	40
DEC 17...	346	.47	48.6	1.3	--	.250	40	20	60
JAN 15...	305	.41	47.8	1.1	.250	.230	20	10	30
FEB 25...	121	.16	94.7	1.6	--	.430	90	620	50
MAR 24...	274	.37	54.0	1.2	--	.260	50	10	20
APR 21...	--	--	56.8	.94	--	.230	50	10	20
MAY 20...	299	.41	58.1	.01	--	.320	20	10	20
JUN 19...	286	.39	45.6	.80	--	.250	30	40	10
JUL 15...	276	.38	20.1	.32	--	.270	60	20	20
AUG 26...	260	.35	11.8	.03	.430	.020	50	<10	30
SEP 23...	281	.38	22.8	.24	--	.270	30	10	20

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	695	358	602	458	1120	609	538	721	795	834	1660	1050
2	691	409	599	562	1100	638	595	712	682	861	1590	610
3	628	402	643	530	955	689	589	748	720	1050	1540	548
4	649	375	758	535	905	709	547	734	610	991	1630	734
5	535	394	610	558	745	730	548	727	641	801	1650	797
6	518	420	652	623	765	729	580	730	665	845	1880	705
7	654	440	479	735	745	795	553	822	560	849	1960	827
8	664	457	447	846	662	698	545	725	640	959	2000	813
9	547	446	430	1140	734	677	543	780	685	1120	2050	915
10	658	438	438	1090	754	650	554	804	720	1030	2190	1210
11	520	464	452	1040	840	598	559	802	760	1040	2130	675
12	695	496	467	1170	820	578	618	769	747	1030	590	736
13	736	423	548	1100	820	575	642	800	630	1040	915	1190
14	597	432	579	920	777	615	667	768	650	1030	1080	803
15	604	479	562	811	725	668	758	755	645	1130	880	774
16	662	499	583	842	700	553	705	749	557	1220	915	789
17	577	532	619	639	750	550	705	723	628	1320	437	735
18	653	470	920	595	758	567	825	758	670	1160	447	768
19	510	502	1290	839	748	625	788	689	800	1230	409	805
20	528	443	1120	832	748	648	800	697	738	1290	466	768
21	507	558	1090	831	745	602	753	703	690	1280	654	928
22	475	400	910	541	623	633	740	707	720	1350	680	900
23	522	410	843	561	550	618	687	732	685	1480	785	736
24	433	450	762	568	508	617	758	755	650	1510	775	787
25	524	461	647	580	543	582	735	799	660	1570	767	828
26	555	469	509	590	535	585	735	858	700	1630	845	826
27	507	458	507	628	515	504	770	823	692	2190	872	888
28	557	465	498	659	518	550	749	555	740	1190	868	758
29	626	491	510	656	556	595	755	551	741	1420	937	729
30	587	595	502	644	---	582	740	637	815	1750	1100	702
31	337	---	541	911	---	558	---	710	---	1470	1150	---

06883000 LITTLE BLUE RIVER NEAR DEWEESE, NE--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.0	6.0	3.0	3.0	1.0	5.0	9.0	15.0	18.0	21.0	25.0	22.0
2	16.0	7.0	4.0	2.0	2.0	6.0	8.0	16.0	17.0	20.0	26.0	23.0
3	15.0	6.0	5.0	2.0	3.0	7.0	8.0	16.0	19.0	21.0	25.0	23.0
4	16.0	7.0	5.0	3.0	3.0	5.0	8.0	16.0	20.0	20.0	25.0	23.0
5	14.0	5.0	6.0	4.0	4.0	5.0	9.0	15.0	20.0	20.0	25.0	22.0
6	14.0	4.0	6.0	4.0	4.0	6.0	10.0	15.0	21.0	20.0	25.0	24.0
7	14.0	4.0	5.0	3.0	4.0	6.0	11.0	14.0	21.0	21.0	27.0	23.0
8	15.0	3.0	6.0	2.0	4.0	7.0	11.0	14.0	20.0	21.0	28.0	24.0
9	16.0	3.0	6.0	2.0	2.0	5.0	10.0	14.0	21.0	21.0	28.0	22.0
10	16.0	3.0	5.0	2.0	2.0	6.0	10.0	13.0	21.0	21.0	28.0	21.0
11	15.0	3.0	4.0	2.0	3.0	5.0	9.0	14.0	21.0	21.0	26.0	20.0
12	15.0	3.0	4.0	3.0	3.0	4.0	9.0	14.0	21.0	21.0	25.0	19.0
13	15.0	4.0	4.0	3.0	4.0	6.0	8.0	13.0	21.0	21.0	26.0	19.0
14	14.0	4.0	5.0	4.0	4.0	9.0	9.0	13.0	21.0	23.0	26.0	18.0
15	14.0	5.0	6.0	4.0	4.0	8.0	9.0	14.0	22.0	23.0	24.0	17.0
16	15.0	5.0	2.0	3.0	3.0	8.0	10.0	13.0	22.0	23.0	24.0	18.0
17	14.0	5.0	2.0	3.0	3.0	8.0	11.0	12.0	20.0	24.0	25.0	17.0
18	15.0	6.0	3.0	4.0	4.0	9.0	12.0	13.0	20.0	24.0	25.0	17.0
19	15.0	7.0	3.0	3.0	4.0	10.0	12.0	14.0	20.0	24.0	26.0	18.0
20	14.0	6.0	4.0	3.0	5.0	11.0	13.0	14.0	20.0	25.0	25.0	17.0
21	11.0	5.0	4.0	4.0	6.0	11.0	13.0	13.0	20.0	25.0	25.0	17.0
22	10.0	5.0	4.0	4.0	5.0	10.0	15.0	13.0	20.0	25.0	26.0	17.0
23	10.0	5.0	4.0	4.0	6.0	9.0	15.0	14.0	20.0	25.0	26.0	16.0
24	11.0	4.0	4.0	5.0	6.0	8.0	14.0	15.0	20.0	25.0	26.0	15.0
25	12.0	5.0	4.0	4.0	6.0	9.0	14.0	15.0	21.0	25.0	25.0	16.0
26	14.0	5.0	4.0	4.0	6.0	10.0	15.0	15.0	22.0	25.0	24.0	15.0
27	15.0	4.0	4.0	4.0	5.0	10.0	15.0	16.0	21.0	26.0	24.0	15.0
28	16.0	3.0	4.0	2.0	4.0	9.0	16.0	16.0	21.0	26.0	24.0	15.0
29	15.0	3.0	4.0	1.0	3.0	8.0	15.0	16.0	20.0	26.0	24.0	15.0
30	14.0	4.0	3.0	1.0	---	9.0	15.0	17.0	20.0	27.0	23.0	14.0
31	12.0	---	2.0	1.0	---	9.0	---	18.0	---	27.0	22.0	---

06883570 LITTLE BLUE RIVER NEAR ALEXANDRIA, NE

LOCATION.--Lat 40°12'27", long 97°23'23", in SE$^1/_4$SE$^1/_4$ sec.23, T.3 N., R.1 W., Thayer County, Hydrologic Unit 10270206, on left bank 750 ft (229 m) upstream from bridge on State Highway 76, 2.7 mi (4.3 km) south of Alexandria, 9.8 mi (15.8 km) downstream from Dry Creek, and 5.7 mi (9.2 km) upstream from Big Sandy Creek.

DRAINAGE AREA.--1,557 mi^2 (4,033 km^2).

PERIOD OF RECORD.--July 1959 to September 1972 (published as "near Gilead"), April 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,359.29 ft (414.312 m) National Geodetic Vertical Datum of 1929. July 1959 to Sept. 30, 1972 at site 2.3 mi (3.7 km) upstream at datum 12.0 ft (3.66 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by irrigation development above station.

AVERAGE DISCHARGE.--19 years (water years 1960-72, 1975-80), 230 ft^3/s (6.514 m^3/s), 166,600 acre-ft/yr (0.205 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,600 ft^3/s (725 m^3/s) Mar. 28, 1960, gage height, 17.30 ft (5.273 m), site and datum then in use; minimum daily, 2.9 ft^3/s (0.082 m^3/s) Aug. 9, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft^3/s (56.6 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Oct. 31	1630	2730	77.3	12.00	3.658
Apr. 4	0600	*3040	86.1	12.63	3.850

Minimum daily discharge, 2.9 ft^3/s (0.082 m^3/s) Aug. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	1410	64	85	86	84	1290	126	931	51	4.7	15
2	43	571	60	80	88	86	875	123	601	94	5.7	12
3	42	298	70	78	88	94	2030	117	1100	150	5.9	13
4	42	188	80	72	90	98	2620	117	1230	273	5.1	12
5	43	143	90	74	92	90	1530	114	841	190	7.6	12
6	44	110	93	72	92	90	1060	113	463	128	12	12
7	44	90	87	62	92	94	634	110	312	112	8.5	12
8	44	79	76	56	88	100	463	107	252	92	5.4	12
9	44	73	73	54	84	150	379	106	197	68	2.9	12
10	43	70	72	60	82	350	309	108	169	43	4.1	13
11	44	69	73	80	84	546	280	105	149	36	8.5	14
12	46	69	40	76	84	335	252	104	137	29	8.1	14
13	47	68	38	90	84	272	222	101	133	24	13	15
14	47	68	50	110	86	210	206	99	122	21	50	14
15	46	70	70	120	88	175	196	96	115	19	36	17
16	48	70	66	116	80	186	189	103	105	15	111	20
17	50	71	60	116	70	365	193	132	101	24	273	21
18	49	73	66	116	74	330	182	132	101	29	274	21
19	53	76	70	120	90	250	176	136	98	24	131	20
20	55	83	76	110	100	220	168	124	100	23	79	19
21	52	98	80	108	120	174	159	121	100	20	44	17
22	61	100	86	106	300	140	147	112	108	17	28	18
23	63	105	90	104	1000	123	140	98	107	14	21	18
24	60	93	90	104	750	118	137	97	100	12	17	19
25	55	82	88	100	500	115	133	95	91	11	13	20
26	56	79	88	90	310	115	131	97	83	9.0	12	21
27	56	74	90	80	200	116	134	95	73	8.0	11	21
28	59	74	88	84	110	147	133	98	66	10	11	21
29	60	48	88	88	95	251	128	100	60	8.0	11	24
30	217	45	87	90	---	1080	127	128	53	7.0	12	24
31	2070	---	87	76	---	1590	---	149	---	5.2	12	---
TOTAL	3727	4547	2336	2777	5107	8094	14623	3463	8098	1566.2	1237.5	503
MEAN	120	152	75.4	89.6	176	261	487	112	270	50.5	39.9	16.8
MAX	2070	1410	93	120	1000	1590	2620	149	1230	273	274	24
MIN	42	45	38	54	70	84	127	95	53	5.2	2.9	12
AC-FT	7390	9020	4630	5510	10130	16050	29000	6870	16060	3110	2450	998

CAL YR 1979 TOTAL 112665.0 MEAN 309 MAX 5500 MIN 38 AC-FT 223500
WTR YR 1980 TOTAL 56078.7 MEAN 153 MAX 2620 MIN 2.9 AC-FT 111200

06883940 BIG SANDY CREEK AT ALEXANDRIA, NE

LOCATION.--Lat 40°14'06", long 97°23'20", in SE1/4SE1/4 sec.11, T.3 N., R.1 W., Thayer County, Hydrologic Unit 10270206, on right bank 15 ft (5 m) upstream from bridge on State Highway 53, 0.8 mi (1.3 km) south of Alexandria.

PERIOD OF RECORD.--October 1979 to September 1980.

GAGE.--Water stage recorder. Altitude of gage is 1,395 ft (425.2 m) from topographic map.

REMARKS.--Records fair.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,590 ft^3/s (45.0 m^3/m) Apr. 3, gage height, 7.98 ft (2.432 m); minimum daily, 17 ft^3/s (0.48 m^3/s) Sept. 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	850	21	20	21	40	487	24	102	20	41	21
2	21	320	21	20	21	42	297	23	506	88	42	19
3	21	126	21	20	21	42	1270	23	821	147	48	19
4	20	90	21	20	21	34	693	23	445	105	45	18
5	21	70	21	20	21	29	340	23	174	93	43	18
6	22	48	20	20	21	28	244	23	142	70	60	18
7	22	40	20	20	21	27	165	22	116	71	64	18
8	22	35	19	20	21	25	102	22	92	60	55	18
9	21	30	20	20	21	43	78	21	65	55	48	17
10	21	25	20	20	21	260	63	21	53	52	43	17
11	22	24	19	20	21	300	52	21	45	51	43	18
12	22	24	19	20	21	207	45	21	38	52	35	18
13	21	23	19	20	21	147	39	20	34	55	32	19
14	21	23	18	20	21	133	35	20	31	54	31	20
15	22	23	19	20	21	90	32	20	29	51	35	21
16	22	23	20	22	20	74	31	22	26	44	104	20
17	22	23	19	21	20	59	30	22	23	45	202	20
18	22	24	20	21	21	48	27	21	21	50	230	19
19	22	25	20	21	21	42	26	20	20	50	129	19
20	23	28	20	20	21	38	25	20	20	51	82	19
21	22	27	20	21	30	33	25	23	20	48	62	20
22	21	26	20	20	160	30	24	28	22	48	45	19
23	25	25	20	20	200	27	24	23	19	45	35	19
24	22	24	20	20	180	25	24	22	19	45	30	19
25	21	23	20	21	140	23	23	21	18	46	26	19
26	22	23	19	21	120	23	23	21	18	46	23	19
27	22	23	20	21	100	22	24	21	18	52	22	19
28	22	23	20	20	80	23	24	21	18	51	20	20
29	22	22	20	20	59	39	23	22	18	45	20	20
30	100	22	20	20	---	485	24	22	18	42	20	19
31	600	---	19	21	---	710	---	27	---	41	20	---
TOTAL	1331	2112	615	630	1487	3148	4319	683	2991	1773	1735	569
MEAN	42.9	70.4	19.8	20.3	51.3	102	144	22.0	99.7	57.2	56.0	19.0
MAX	600	850	21	22	200	710	1270	28	821	147	230	21
MIN	20	22	18	20	20	22	23	20	18	20	20	17
AC-FT	2640	4190	1220	1250	2950	6240	8570	1350	5930	3520	3440	1130

WTR YR 1980 TOTAL 2139[illegible] MEAN 58.5 MAX 1270 MIN 17 AC-FT 42430

06884000 LITTLE BLUE RIVER NEAR FAIRBURY, NE

LOCATION.--Lat 40°06'54", long 97°10'13", in NW1/4NE1/4 sec.26, T.2 N., R.2 E., Jefferson County, Hydrologic Unit 10270207, at right downstream wingwall of bridge on State Highway 15 (revised), 0.8 mi (1.3 km) south of Fairbury, and 5.2 mi (8.4 km) upstream from Rose Creek.

DRAINAGE AREA.--2,350 mi² (6,087 km²).

PERIOD OF RECORD.--May 1908 to September 1915, October 1928 to September 1956 (published as "near Endicott"), October 1956 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1086: 1941(M). WSP 1390: 1908(M), 1912, 1915, 1935, 1939, 1945(M). WSP 1510: 1947 (calendar year figures only). WSP 1919: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,282.19 ft (390.812 m) National Geodetic Vertical Datum of 1929. May 23, 1908, to Sept. 30, 1915, nonrecording gage at present site at different datum. Apr. 26, 1929, to Sept. 24, 1957, nonrecording gage or water-stage recorder at site 3.5 mi (5.6 km) downstream at various datums.

REMARKS.--Records good except those for winter period, which are poor. Some regulation at low stage by powerplants above station. Natural flow of stream affected by ground-water withdrawals for irrigation and return flow from irrigated areas.

AVERAGE DISCHARGE.--59 years, 368 ft³/s (10.42 m³/s), 266,600 acre-ft/yr (0.329 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,800 ft³/s (1,070 m³/s) Oct. 12, 1973, gage height, 18.96 ft (5.779 m); minimum daily, 14 ft³/s (0.40 m³/s) Nov. 22, 1929, discharge measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft³/s (85.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 1	0200	3350	94.9	6.26	1.908
Apr. 4	1030	*3840	109	7.14	2.176

Minimum daily discharge, 31 ft³/s (0.88 m³/s) Sept. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	2620	98	112	116	170	1950	179	1060	78	50	42
2	67	1160	94	108	118	180	1240	179	1000	219	50	40
3	67	627	104	97	122	200	2860	178	1650	267	55	38
4	67	384	120	104	122	220	3470	175	1690	303	64	37
5	68	289	132	94	125	125	2020	176	1040	318	62	36
6	68	238	125	108	126	125	1430	173	617	225	68	31
7	72	205	118	72	124	130	944	164	410	190	93	34
8	72	185	115	76	106	150	675	162	314	171	94	35
9	72	169	108	88	98	200	524	160	254	148	70	34
10	72	162	106	94	94	650	422	158	206	125	63	37
11	70	148	104	110	104	1100	373	153	176	121	68	42
12	70	129	78	104	104	660	331	151	159	105	62	46
13	72	129	66	120	104	500	286	154	155	104	44	43
14	72	125	70	131	108	426	271	151	139	102	50	41
15	73	118	96	144	114	345	264	149	129	105	88	41
16	73	123	84	171	100	312	254	161	128	93	144	44
17	72	129	74	173	84	338	263	188	119	75	232	47
18	72	131	78	171	94	403	262	183	118	78	457	47
19	76	133	88	185	110	331	241	179	115	80	304	45
20	76	140	93	180	117	289	229	172	113	79	205	42
21	81	167	98	171	134	258	221	164	114	74	145	44
22	81	165	102	162	400	230	213	159	135	68	112	44
23	81	151	119	153	1350	205	205	158	124	68	89	42
24	86	144	117	152	1030	182	190	149	114	68	65	44
25	86	137	114	155	750	183	201	144	95	70	52	47
26	90	132	111	107	600	190	191	140	98	75	43	46
27	90	130	110	86	500	195	187	140	94	76	38	47
28	90	123	111	108	350	243	183	136	86	85	40	49
29	93	107	111	118	250	430	183	136	84	75	36	49
30	214	96	113	122	---	1730	181	147	88	64	34	50
31	2250	---	112	112	---	2280	---	179	---	54	38	---
TOTAL	4660	8696	3169	3888	7554	12980	20264	4997	10624	3763	3015	1264
MEAN	150	290	102	125	260	419	675	161	354	121	97.3	42.1
MAX	2250	2620	132	185	1350	2280	3470	188	1690	318	457	50
MIN	67	96	66	72	84	125	181	136	84	54	34	31
AC-FT	9240	17250	6290	7710	14980	25750	40190	9910	21070	7460	5980	2510

CAL YR 1979 TOTAL 178264 MEAN 488 MAX 8820 MIN 66 AC-FT 353600
WTR YR 1980 TOTAL 84874 MEAN 232 MAX 3470 MIN 31 AC-FT 168300

06884025 LITTLE BLUE RIVER AT HOLLENBERG, KS

LOCATION.--Lat 39°58'48", long 97°00'16", NE1/4SW1/4 sec.8, T.1 S., R.4 E., Washington County, Hydrologic Unit 10270207, on right bank and 2 ft (1 m) downstream from bridge on county road, 0.6 mi (1.0 km) west of Hollenberg, and 1.75 mi (2.82 km) downstream from Nebraska-Kansas State line.

DRAINAGE AREA.--2,752 mi² (7,128 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1973 to February 1974 (discharge measurements only), March 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,216.10 ft (370.667 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor. Discharge measurements made prior to 1974 water year are published in table of miscellaneous sites in WDR NE-73.

AVERAGE DISCHARGE.--6 years, 467 ft³/s (13.23 m³/s), 338,300 acre-ft/yr (0.417 km³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,200 ft³/s (487 m³/s) Mar. 15, 1978, gage height, 16.58 ft (5.054 m) from high-water mark; minimum daily, 40 ft³/s (1.13 m³/s) Dec. 17, 1975.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 12, 1973, reached a stage of 23.07 ft (7.032 m), present datum, from floodmark, discharge not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft³/s (85.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 1	0300	3710	105	8.67	2.643	Apr. 4	1630	*5130	145	10.11	3.082
Mar. 30	1930	4450	126	9.45	2.880						

Minimum daily discharge, 43 ft³/s (1.22 m³/s) Aug. 29, Sept. 4, 9, 10, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	3180	163	161	165	250	3340	259	1220	122	67	51
2	87	1760	161	155	170	300	2000	251	1420	155	68	53
3	85	885	151	163	175	350	3610	248	1630	467	67	45
4	91	507	155	165	175	400	4810	243	2190	363	79	43
5	98	388	172	162	175	300	3310	241	1470	428	79	46
6	93	310	163	156	175	300	2110	232	918	348	85	46
7	92	270	155	120	180	320	1560	223	628	250	96	46
8	93	235	141	125	150	350	1110	216	487	208	116	45
9	91	217	136	140	135	380	849	213	414	174	93	43
10	90	211	134	150	125	966	698	214	336	150	74	43
11	88	205	128	160	135	1420	657	210	290	126	93	48
12	91	193	130	155	135	1010	607	207	257	119	86	45
13	92	188	110	180	150	669	506	202	246	105	77	46
14	90	185	116	210	180	565	444	204	233	100	67	48
15	95	182	130	240	205	482	407	202	211	93	94	51
16	94	182	125	218	190	404	373	212	198	93	136	53
17	90	179	110	220	170	388	375	253	184	83	875	51
18	93	182	120	219	190	500	381	267	178	75	359	51
19	94	182	130	240	220	428	357	258	175	73	390	51
20	103	193	145	230	250	343	347	248	171	83	244	48
21	100	319	155	223	280	300	323	229	177	79	174	46
22	112	286	180	205	560	267	304	222	218	71	137	46
23	119	236	210	190	1600	257	294	220	238	73	105	43
24	119	214	200	192	1500	240	291	211	191	71	85	46
25	114	195	173	190	1250	224	273	198	190	64	67	51
26	116	182	168	170	900	223	296	193	156	75	56	51
27	109	176	164	140	600	226	284	183	150	73	50	50
28	109	166	159	150	540	300	278	181	136	87	51	50
29	109	174	158	165	450	883	273	179	124	77	43	55
30	274	159	158	165	---	3810	265	180	122	60	53	85
31	2220	---	159	160	---	4160	---	208	---	64	46	---
TOTAL	5344	11941	4659	5519	11130	21015	30732	6807	14558	4409	4112	1476
MEAN	172	398	150	178	384	678	1024	220	485	142	133	49.2
MAX	2220	3180	210	240	1600	4160	4810	267	2190	467	875	85
MIN	85	159	110	120	125	223	265	179	122	60	43	43
AC-FT	10600	23680	9240	10950	22080	41680	60960	13500	28880	8750	8160	2930

CAL YR 1979 TOTAL 245833 MEAN 674 MAX 10400 MIN 81 AC-FT 487600
WTR YR 1980 TOTAL 121702 MEAN 333 MAX 4810 MIN 43 AC-FT 241400

06884025 LITTLE BLUE RIVER AT HOLLENBERG, KS--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water year 1972 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	COLOR (PLAT-INUM COBALT UNITS) (00080)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 16...	97	612	8.4	13.0	5	25	8.5	7.5	K69	230
NOV 20...	205	570	8.1	7.0	10	40	--	4.8	4700	500
DEC 12...	140	554	7.9	.0	10	--	14.4	1.8	K14000	200
JAN 23...	201	579	7.4	.5	20	35	14.2	11	600	1400
FEB 12...	134	618	7.9	5.0	5	6	11.4	3.8	K100	K320
MAR 05...	316	430	7.7	.5	140	50	13.6	7.0	K130	270
31...	4170	220	7.5	7.0	300	1400	10.2	18	K16000	100000
APR 15...	407	600	7.9	8.0	5	55	10.3	1.5	370	2600
MAY 07...	221	620	8.0	19.0	10	15	12.1	14	K90	K76
JUN 05...	1390	205	7.3	27.0	60	1700	6.0	8.1	23000	16000
17...	180	575	8.8	27.0	40	55	12.8	11	K680	140
JUL 08...	215	455	7.7	31.0	70	220	7.6	18	2000	640
AUG 21...	190	335	8.1	21.0	120	200	7.4	6.6	5000	2600
SEP 11...	51	711	7.8	22.0	35	10	12.5	6.6	200	840

K Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
OCT 16...	200	14	65	10	52	1.6	7.4	190	41
NOV 20...	200	20	57	14	34	1.0	8.2	180	42
DEC 12...	210	14	69	10	45	1.3	6.5	200	49
JAN 23...	210	19	67	10	39	1.2	7.2	190	47
FEB 12...	240	28	77	11	48	1.4	6.2	210	51
MAR 05...	160	13	52	8.0	27	.9	10	150	38
31...	83	--	27	3.8	10	.5	9.2	--	23
APR 15...	230	26	74	10	34	1.0	9.5	200	60
MAY 07...	230	32	73	12	42	1.2	7.9	200	58
JUN 05...	71	--	22	4.0	8.0	.4	10	--	11
17...	210	0	66	11	41	1.2	9.5	210	42
JUL 08...	150	7	45	8.3	30	1.1	14	140	32
AUG 21...	110	10	34	6.0	22	.9	11	100	31
SEP 11...	190	10	60	9.8	68	2.1	7.5	180	47

06884025 LITTLE BLUE RIVER AT HOLLENBERG, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)
OCT									
16...	54	.3	61	375	407	.51	99.0	.57	.54
NOV									
20...	36	.2	24	334	331	.45	185	1.6	1.6
DEC									
12...	38	.3	29	370	375	.50	140	1.7	1.7
JAN									
23...	36	.3	27	355	354	.48	193	1.5	1.5
FEB									
12...	41	.2	27	388	395	.53	140	1.6	1.6
MAR									
05...	24	.3	22	309	281	.42	264	1.8	1.8
31...	8.7	.3	11	--	105	.14	1180	3.3	2.6
APR									
15...	36	.3	23	400	374	.54	440	1.4	1.4
MAY									
07...	38	.3	15	367	367	.50	219	.03	.03
JUN									
05...	5.4	.3	11	--	--	--	--	3.5	3.2
17...	42	.4	22	365	374	.50	177	.02	--
JUL									
08...	32	.5	24	299	290	.41	174	4.4	4.4
AUG									
21...	23	.4	21	225	209	.31	115	2.6	.00
SEP									
11...	84	.4	20	402	407	.55	56.2	.45	.37

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
OCT									
16...	.12	1.3	1.4	2.0	.330	.270	60	30	60
NOV									
20...	.10	.66	.76	2.4	.370	.320	50	20	40
DEC									
12...	.07	.81	.88	2.6	.360	.310	40	30	50
JAN									
23...	.08	.35	.43	1.9	.390	.290	60	20	30
FEB									
12...	.11	.27	.38	2.0	.240	.210	50	20	80
MAR									
05...	.50	1.2	1.7	3.5	.440	.340	60	120	20
31...	.74	10	11	14	1.800	.210	80	380	20
APR									
15...	.10	1.0	1.1	2.5	.420	.350	40	20	20
MAY									
07...	.01	1.4	1.4	1.4	.240	.110	60	10	20
JUN									
05...	.65	4.3	4.9	8.4	.310	.240	120	190	590
17...	.04	2.6	2.6	2.6	.510	.260	70	50	20
JUL									
08...	.26	2.1	2.4	6.8	.690	.450	150	40	5
AUG									
21...	.03	1.8	1.8	4.4	.760	.500	90	60	3
SEP									
11...	.00	1.3	1.3	1.8	.470	.450	110	<10	30

DATE	TIME	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L) (00340)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N) (00607)	NITROGEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N) (00624)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITROGEN, DISSOLVED (MG/L AS N) (00602)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC SUSPENDED TOTAL (UG/L AS AS) (01001)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)
NOV											
20...	1230	--	--	--	--	--	--	--	--	4	200
MAR											
31...	1230	190	.44	1.4	9.2	1.8	4.4	20	18	2	--
MAY											
07...	1330	--	--	--	--	--	--	--	--	3	200
JUN											
05...	1515	230	.18	1.4	3.3	1.6	4.8	23	18	5	--

06884025 LITTLE BLUE RIVER AT HOLLENBERG, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM SUS-PENDED RECOV-ERABLE (UG/L AS CD) (01026)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, SUS-PENDED RECOV. (UG/L AS CR) (01031)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COBALT, SUS-PENDED RECOV-ERABLE (UG/L AS CO) (01036)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)
NOV 20...	--	--	<1	--	--	0	--	--	--	--
MAR 31...	2	1	1	40	30	10	26	26	0	50
MAY 07...	--	--	1	--	--	0	--	--	--	--
JUN 05...	1	1	0	70	70	0	24	23	1	70

DATE	COPPER, SUS-PENDED RECOV-ERABLE (UG/L AS CU) (01041)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, SUS-PENDED RECOV-ERABLE (UG/L AS FE) (01044)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, SUS-PENDED RECOV-ERABLE (UG/L AS PB) (01050)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, SUS-PENDED RECOV. (UG/L AS MN) (01054)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)
NOV 20...	--	6	--	--	--	--	0	--	--	.1
MAR 31...	31	19	59000	59000	48	48	0	1600	1600	.3
MAY 07...	--	3	--	--	--	--	0	--	--	.1
JUN 05...	59	11	7000	6800	77	77	0	1900	1300	.5

DATE	MERCURY SUS-PENDED RECOV-ERABLE (UG/L AS HG) (71895)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, SUS-PENDED TOTAL (UG/L AS SE) (01146)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, SUS-PENDED RECOV-ERABLE (UG/L AS ZN) (01091)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
NOV 20...	.1	.0	--	--	1	0	--	--	3	--
MAR 31...	.2	.1	1	1	0	0	290	270	20	52
MAY 07...	.1	.0	--	--	2	0	--	--	10	--
JUN 05...	.5	.0	2	1	1	0	330	320	10	63

DATE	TIME	PER-THANE TOTAL (UG/L) (39034)	PCB, TOTAL (UG/L) (39516)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39519)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L) (39250)	ALDRIN, TOTAL (UG/L) (39330)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39333)	CHLOR-DANE, TOTAL (UG/L) (39350)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39351)	DDD, TOTAL (UG/L) (39360)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39363)	DDE, TOTAL (UG/L) (39365)
NOV 20...	1230	--	--	0	--	--	.0	--	0	--	.0	--
FEB 12...	1430	--	--	0	--	--	.0	--	0	--	.0	--
MAR 31...	1230	.00	.0	--	.00	.00	--	.0	--	.00	--	.00
MAY 07...	1330	--	--	0	--	--	.0	--	0	--	.0	--
JUN 05...	1515	.00	.0	--	.00	.00	--	.0	--	.00	--	.00
AUG 21...	0945	--	--	0	--	--	.0	--	0	--	.0	--

06884025 LITTLE BLUE RIVER AT HOLLENBERG, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39368)	DDT, TOTAL (UG/L) (39370)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG) (39373)	DIAZINON, TOTAL (UG/L) (39570)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG) (39571)	DIELDRIN TOTAL (UG/L) (39380)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39383)	ENDOSULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39393)	ETHION, TOTAL (UG/L) (39398)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG) (39399)
NOV 20...	.0	--	.0	--	.0	--	.0	--	--	.0	--	.0
FEB 12...	.0	--	.0	--	.0	--	.0	--	--	.0	--	.0
MAR 31...	--	.00	--	.00	--	.00	--	.00	.00	--	.00	--
MAY 07...	.0	--	.0	--	.0	--	.1	--	--	.0	--	.0
JUN 05...	--	.00	--	.00	--	.01	--	.00	.00	--	.00	--
AUG 21...	.0	--	.0	--	.0	--	.0	--	--	.0	--	.0

DATE	HEPTACHLOR, TOTAL (UG/L) (39410)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG) (39413)	HEPTACHLOR EPOXIDE TOTAL (UG/L) (39420)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE TOTAL (UG/L) (39340)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG) (39343)	MALATHION, TOTAL (UG/L) (39530)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG) (39531)	METHOXYCHLOR, TOTAL (UG/L) (39480)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)	METHYL PARATHION, TOTAL (UG/L) (39600)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG) (39601)
NOV 20...	--	.0	--	.0	--	.0	--	.0	--	.0	--	.0
FEB 12...	--	.0	--	.0	--	.0	--	.0	--	.0	--	.0
MAR 31...	.00	--	.00	--	.00	--	.00	--	.00	--	.00	--
MAY 07...	--	.0	--	.0	--	.0	--	.0	--	.0	--	.0
JUN 05...	.00	--	.00	--	.00	--	.00	--	.00	--	.00	--
AUG 21...	--	.0	--	.0	--	.0	--	.0	--	.0	--	.0

DATE	METHYL TRITHION, TOTAL (UG/L) (39790)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG) (39791)	PARATHION, TOTAL (UG/L) (39540)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG) (39541)	TOXAPHENE, TOTAL (UG/L) (39400)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39403)	TOTAL TRITHION (UG/L) (39786)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG) (39787)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	MIREX, TOTAL (UG/L) (39755)	SILVEX, TOTAL (UG/L) (39760)
NOV 20...	--	.0	--	.0	--	0	--	.0	--	--	--	--
FEB 12...	--	.0	--	.0	--	0	--	.0	--	--	--	--
MAR 31...	.00	--	.00	--	0	--	.00	--	.15	.02	.00	.00
MAY 07...	--	.0	--	.0	--	0	--	.0	--	--	--	--
JUN 05...	.00	--	.00	--	0	--	.00	--	.01	.00	.00	.00
AUG 21...	--	.0	--	.0	--	0	--	.0	--	--	--	--

06884025 LITTLE BLUE RIVER AT HOLLENBERG, KS--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE, WATER (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)
MAR 31...	1230	4170	7.0	4540	51100	31	31	49	94	97	100
JUN 05...	1515	1390	27.0	14400	54000	79	86	92	100	--	--

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	NUMBER OF SAM-PLING POINTS (00063)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)
MAR 31...	1230	4170	3	0	29	61	68	76	88	98	100
JUN 05...	1515	1390	3	0	13	55	78	88	94	99	100

DISCHARGE AT PARTIAL RECORD STATIONS AND MISCELLANEOUS SITES

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest stage partial record stations during water year 1980

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft^3/s)
		Platte River basin					
06771000	Wood River near Riverdale, NE	Lat 40°47'56", long 99°11'48", in NW1/4NW1/4 sec.31, T.10 N., R.16 W., Buffalo County, at downstream side of State Highway 40, 1.5 miles northwest of Riverdale.	379	1946-73#, 1974-80	02-23-80	8.43	478
		Kansas River basin					
06838200	Coon Creek at Indianola, NE	Lat 40°14'03", long 100°25'37", in NW1/4NE1/4 sec.13, T.3 N., R.28 W., Red Willow County, at bridge on U.S. Highways 6 and 34, 0.5 mile west of Indianola.	a69	1961-80	80	---	69
06838550	Dry Creek at Bartley, NE	Lat 40°15'02", long 100°19'02", in SW1/4SE1/4 sec.1, T.3 N., R.27 W., Red Willow County, at bridge on U.S. Highway 6 and 34, 0.5 mile west of Bartley.	a42	1961-80	80	---	69
06850000	Turkey Creek at Naponee, NE	Lat 40°04'34", long 99°08'17", in SW1/4SW1/4 sec.4, T.1 N., R.16 W., Franklin County, on downstream side of county bridge at east side of Naponee.	129	1948-53#, 1954-61c 1962-77d 1978-80c	04-03-80	4.59	220
06881450	Indian Creek at Beatrice, NE	Lat 40°17'08", long 96°44'47", in SE1/4NE1/4 sec.28, T.4 N., R.6 E., Gage County, at bridge on U.S. Highway 77 at north edge of Beatrice.	74.7	1960-80	06-02-80	10.48	1,300

Operated as a continuous-record gaging station.
a Approximate.
b Estimate.
c Discharge measurements published in table for miscellaneous sites.
d Discharge measurements published in table for low flow partial record sites.

Measurements of streamflow at points other than gaging stations or partial-record stations are given in the following table. Those that are measurements of peak flow are designated by a dagger (+). Some measurements were made during periods of base flow when streamflow is primarily from ground-water storage and may be correlated with the simultaneous discharge of a nearby stream where continuous records are available to give a picture of the low-flow potentiality of the stream.

Discharge measurements made at miscellaneous sites during water year 1980

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Niobrara River basin				
Plum Creek [1] (06462450)	Niobrara River	Lat 42°34'08", long 100°06'22", in NW1/4SW1/4 sec.14, T.30 N., R.24 W., Brown County, at bridge on U.S. Highway 20, 2 miles west of Johnstown.	--	1969-73 1978-79	06-09-80 07-28-80	24 21
Plum Creek [1] (06462470)	Niobrara River	Lat 42°40'01", long 100°03'26", in SE1/4SE1/4 sec.7, T.31 N., R.23 W., Brown County, at county road bridge 0.2 mile upstream from Sand Draw and 6.5 miles north of Johnstown.	--	1969-73 1978-79	06-09-80 07-28-80	71 54
Long Pine Creek [1] (06463050)	Niobrara River	Lat 42°32'59", long 99°42'23", in NE1/4NW1/4 sec.30, T.30 N., R.20 W., Brown County, at timber bridge 0.1 mile downstream from bridge on U.S. Highway 20 and 0.9 mile northwest of Long Pine.	--	1978-79	06-10-80 07-29-80	54 49
Bone Creek [1] (06463090)	Long Pine Creek	Lat 42°32'51", long 99°52'33", in NE1/4NE1/4 sec.27, T.30 N., R.22 W., Brown County, at bridge on U.S. Highway 20, 0.6 mile west of junction of highways 7 and 20 in Ainsworth.	--	1969-73 1978-79	06-10-80 07-29-80	2.8 1.0
Sand Draw [1] (06463290)	Bone Creek	Lat 42°34'08", long 99°58'08", in NE1/4NE1/4 sec.14, T.30 N., R.23 W., Brown County, at bridge on county road 4.5 miles east and 0.7 mile north of Johnstown.	--	1978-79	06-10-80 07-29-80	1.3 .50
Sand Draw [1] (06463310)	Bone Creek	Lat 42°38'10", long 99°51'10", in NE1/4NE1/4 sec.26, T.31 N., R.22 W., Brown County, at bridge on county road 8.6 miles south of Meadville and about 4.5 miles upstream from Bone Creek.	--	1978-79	06-10-80 07-29-80	5.6 5.0
Bone Creek [1] (06463350)	Long Pine Creek	Lat 42°40'16", long 99°46'06", in NE1/4SW1/4 sec.10, T.31 N., R.21 W., Brown County, at bridge on U.S. Highway 183, 2.8 miles west and 8.4 miles north of Long Pine.	--	1969-73 1978-79	06-10-80 07-29-80	44 42
Eagle Creek [1] (06465050)	Niobrara River	Lat 42°38'01", long 98°46'21", in SW1/4NW1/4 sec.30, T.31 N., R.12 W., Holt County, at county road bridge 4.3 miles south and 6 miles west of Midway.	--	1969-79	04-09-80 09-08-80	23 12
East Branch Eagle Creek [1] (06465100)	Eagle Creek	Lat 42°37'35", long 98°45'49", in SW1/4SE1/4 sec.30, T.31 N., R.12 W., Holt County, at county road bridge 5 miles south and 5.4 miles west of Midway.	--	1969-79	04-09-80 09-08-80	10 6.0
Redbird Creek [1] (06465398)	Niobrara River	Lat 42°39'33", long 98°33'31", in NE1/4SE1/4 sec.14, T.31 N., R.11 W., Holt County, at site 3.2 miles east and 2.7 miles south of Meek.	--	1969-79	04-09-80 09-08-80	14 9.6
Blackbird Creek [1] (06465420)	Redbird Creek	Lat 42°39'46", long 98°34'24", in SW1/4NW1/4 sec.14, T.31 N., R.11 W., Holt County, at county road bridge 2.4 miles east and 2.3 miles south of Meek.	--	1969-79	04-09-80 09-08-80	9.2 2.2

See footnotes at end of table

Discharge measurements made at miscellaneous sites during water year 1980--Continued

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
Niobrara River basin--Continued						
Verdigre Creek (06465685)	Niobrara River	Lat 42°35'29", long 98°01'49", in SE1/4NE1/4 sec.8, T.30 N., R.6 W., Knox County, at bridge on county road (old State Highway 14) 0.2 mile south of Verdigre.	440	1947-51 1978-79	10-09-79	81
					11-06-79	122
					11-26-79	126
					12-17-79	49
					01-07-80	17
					01-28-80	96
					02-19-80	144
					03-10-80	152
					03-31-80	142
					04-21-80	96
					05-12-80	90
					06-02-80	94
					06-23-80	72
					07-14-80	36
					08-04-80	116
					08-26-80	160
					09-15-80	68
Platte River basin						
Wood River (06772500)	Platte River	Lat 40°57'56", long 98°12'22", in NE1/4SE1/4 sec.34, T.12 N., R.6 W., Merrick County, at bridge on county road 4.7 miles southwest of Chapman.	700	1968-79	10-30-79	38
					11-29-79	7.9
					12-19-79	7.7
					01-10-80	12
					02-21-80	18
					03-05-80	23
					04-03-80	133
					05-23-80	20
					06-25-80	25
					07-16-80	22
					08-28-80	7.5
					09-17-80	3.6
Middle Loup River (06777000)	Loup River	Lat 41°49'02", long 99°58'15", in NE1/4SW1/4 sec.3, T.21 N., R.23 W., Blaine County, at Loughan bridge 9 miles upstream.	3,690	1970-79	10-30-79	871
					11-19-79	828
					12-11-79	863
					01-02-80	786
					02-12-80	863
					03-24-80	788
					04-14-80	919
					05-27-80	736
					06-16-80	786
					07-29-80	691
					08-20-80	733
					09-10-80	700
Deer Creek [1] (06781530)	Middle Loup	Lat 41°05'37", long 98°42'37", in SE1/4SE1/4 sec.17, T.13 N., R.12 W., Howard County, at upstream side of bridge on county road 1.2 miles north of Boleus.	--	1977-79	06-05-80	.31
					08-14-80	e.10
Oak Creek [1] (06784400)	Middle Loup	Lat 41°11'30", long 98°41'25", in SW1/4SW1/4 sec.10, T.14 N., R.12 W., Howard County, at upstream side of bridge on county road 3.6 miles southwest of Farwell.	--	1977-79	10-11-79	11
					06-05-80	48
					08-14-80	16
Oak Creek [1] (06784500)	Middle Loup	Lat 41°07'10", long 98°36'45", in NW1/4NW1/4 sec.8, T.13 N., R.11 W., Howard County, at downstream side of bridge on county road 2 miles west of Dannebrog.	--	1949-57 1977-79	10-11-79	18
					06-05-80	53
					08-14-80	17
Dry Creek [1] (06784505)	Oak Creek	Lat 41°06'18", long 98°36'16", in NE1/4NW1/4 sec.17, T.13 N., R.11 W., Howard County, at downstream side of bridge on county road 3.3 miles southwest of Dannebrog.	--	1977-79	10-11-79	1.8
					06-05-80	2.2
					08-14-80	1.4
Turkey Creek [1] (06784750)	Middle Loup River	Lat 41°10'48", long 98°36'50", in SE1/4SE1/4 sec.18, T.14 N., R.11 W., Howard County, at upstream side of bridge on county road 3.1 miles north of Nysted.	--	1977-79	10-11-79	2.4
					06-05-80	3.5
					08-14-80	1.8
Turkey Creek [1] (06784810)	Middle Loup River	Lat 41°09'28", long 98°31'06", in SE1/4NE1/4 sec.25, T.14 N., R.11 W., Howard County, at upstream side of bridge on county road 3.2 miles northeast of Dannebrog.	--	1977-79	10-11-79	6.3
					06-05-80	13
					08-14-80	1.5

Discharge measurements made at miscellaneous sites during water year 1980--Continued

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Platte River basin--Continued				
Turkey Creek Tributary [1] (06784820)	Turkey Creek	Lat 41°10'55", long 98°29'39", in NW1/4SW1/4 sec.17, T.14 N., R.10 W., Howard County, at downstream side of bridge on county road 3 miles southwest of St Paul.	--	1977-79	06-05-80 08-14-80	1.8 1.2
Unnamed Creek [1] (06785020)	Middle Loup River	Lat 41°12'48", long 98°28'35", in SW1/4NW1/4 sec.4, T.14 N., R.10 W., Howard County, at downstream side of bridge on county road near west edge of St Paul.	--	1977-79	10-11-79 06-05-80 08-14-80	.44 2.5 e1.5
Dane Creek [1] (06788495)	North Loup River	Lat 98°54'01", long 41°36'31", in NE1/4NE1/4 sec.20, T.19 N., R.14 W., Valley County, at bridge on State Highway 11 at northwest edge of Ord.	--	1962a 1977-79	04-28-80 09-25-80	.36 11
Myra Creek [1] (06788990)	North Loup River	Lat 41°29'54", long 98°46'46", in SE1/4SW1/4 sec.26, T.18 N., R.13 W., Valley County, at bridge on State Highway 11 at west edge of North Loup.	--	1977-79	04-28-80 09-02-80	14 1.0
Auger Creek [1] (06790245)	North Loup River	Lat 41°17'38", long 98°34'26", in SE1/4SE1/4 sec.4, T.15 N., R.11 W., Howard County, at upstream side of bridge on State Highway 11, 0.5 mile north of Elba.	--	1977-79	10-11-79 06-05-80 08-14-80	.35 1.4 .14
Unnamed Creek [1] (06790255)	North Loup River	Lat 41°16'22", long 98°33'24", in SE1/4NE1/4 sec.15, T.15 N., R.11 W., Howard County, downstream side of bridge on State Highway 11, 0.5 mile southeast of Elba.	--	1977-79	10-11-79 06-05-80 08-14-80	.04 .16 e.25
Salt Creek [1] (06801330)	Platte River	Lat 40°38'41", long 96°41'11", in NW1/4SW1/4 sec.19, T.8 N., R.7 E., Lancaster County, at bridge on county road, 1.5 miles southwest of Roca.	--	1971-75, 1976-79b	11-17-79 02-20-80 05-14-80 08-12-80	e6.0 8.2 8.6 e1.0
Salt Creek [1] (06803080)	Platte River	Lat 40°46'13", long 96°43'05", in SW1/4SW1/4 sec.2, T.9 N., R.6 E., Lancaster County, at bridge on county road 0.9 mile west of U.S. Highway 77 and at northwest corner of State Penitentiary, Lincoln.	221	1971-79	10-16-79 12-08-79 01-08-80 02-09-80 02-20-80 03-13-80 04-02-80 05-14-80 06-14-80 07-24-80 08-12-80	4.9 15 11 6.2 16 66 272 17 16 5.4 5.2
Salt Creek [1] (06803190)	Platte River	Lat 40°50'03", long 96°42'03", in NE1/4SE1/4 sec.14, T.10 N., R.6 E., Lancaster County, at bridge at 14th Street at Lincoln, Nebr., 0.3 mile upstream from confluence with Oak Creek and 2.1 miles downstream from Middle Creek.	411	1971-79	11-16-79 02-20-80 05-13-80 08-17-80	31 41 45 30
Oak Creek [1] (06803493)	Salt Creek	Lat 40°50'10", long 96°42'03", in SE1/4NE1/4 sec.14, T.10 N., R.6 E., Lancaster County, at bridge on 14th Street 0.2 mile upstream from confluence with Salt Creek, Lincoln.	258	1971-79	11-16-79 02-20-80 05-13-80 08-12-80	34 34 27 56
Salt Creek [1] (06803525)	Platte River	Lat 40°54'18", long 96°35'09", in NW1/4SW1/4 sec.24, T.11 N., R.7 E., Lancaster County, at bridge 0.5 mile north of Interstate Highway 80 and 3 miles southwest of Waverly.	815	1971-79	10-16-79 11-19-79 01-09-80 02-06-80 07-25-80	58 189 173 122 72
Mill Creek [1] (06805499)	Platte River	Lat 41°00'13", long 96°09'35", in NE1/4SE1/4SE1/4 sec.15, T.12 N., R.11 E., Cass County, at railroad bridge at north edge of Louisville.	--	1973-79	04-03-80 07-30-80	6.9 .45
Cedar Creek [1] (06805525)	Platte River	Lat 41°00'05", long 96°07'15", in SE1/4SE1/4SE1/4 sec.13, T.12 N., R.11 E., Cass County, at bridge on State Highway 66, 2.0 miles east of Louisville.	--	1973-79	04-03-80 07-30-80	22 1.1

Discharge measurements made at miscellaneous sites during water year 1980--Continued

Stream	Tributary to	Location	Drainage area (mi²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft³/s)
		Platte River basin--Continued				
Fourmile Creek [1] (06805565)	Platte River	Lat 41°01'02", long 95°57'46", in SE1/4SW1/4 sec.9, T.12 N., R.13 E., at county road bridge 1 mile north of State Highway 66, 3.25 miles west of Maiden Lane in Plattsmouth, and 3.67 miles upstream from mouth.	--	1975-79	04-03-80 07-30-80	42 2.9
		Weeping Water Creek basin				
Weeping Water Creek [1] (06806460)	Missouri River	Lat 40°51'18", long 96°07'10", in NW1/4NW1/4 sec.7, T.10 N., R.12 E., Cass County, at bridge of Missouri Pacific Railroad just south of north-south road, 1 mile southeast of Weeping Water.	--	1947, 1950-79	04-03-80 07-30-80	200 1.7
South Branch Weeping Water Creek [1] (06806495)	Weeping Water Creek	Lat 40°48'45", long 95°56'43", in SW1/4SE1/4SW1/4 sec.22, T.10 N., R.13 E., Cass County, at bridge on U.S. Highway 34, 1.1 miles west of Union.	--	1973-79	04-03-80 07-29-80	152 3.67
		Kansas River basin				
Turkey Creek (06850000) *	Republican River	Lat 40°04'34", long 99°08'17", in SW1/4SW1/4 sec.4, T.1 N., R.16 W., Franklin County, at county road bridge at east side of Naponee, 0.8 mile upstream from mouth.	129	1948-53*, 1954-60a, 1961-79	04-10-80 05-05-80 06-02-80 07-02-80 07-28-80 08-13-80 09-12-80	19 15 17 8.3 1.9 2.2 5.7
Republican River (06850500)	Kansas River	Lat 40°03'58", long 99°02'14", in NW1/4SE1/4 sec.8, T.1 N., R.15 W., Franklin County, 2 miles south of Bloomington.	21000	1929-57*, 1960-67, 1970-78	07-29-80	993
Republican River (06851090)	Kansas River	Lat 40°05'26", long 98°46'03", in SE1/4SE1/4 sec.34, T.2 N., R.13 W., Franklin County, at bridge on county road 0.5 mile west of Riverton.	21300	1963-67, 1970-78	07-29-80	894
Big Blue River (06879855)	Kansas River	Lat 41°01'54", long 97°49'33", in NW1/4NW1/4 sec.7, T.12 N., R.4 W., York County, at bridge on county line road 2.5 miles west of Arborville.	--	1970d, 1974-79	10-04-79 03-25-80 05-28-80 07-17-80 09-04-80	0 e.01 0 1.7 0
Lincoln Creek (06879980)	Big Blue River	Lat 40°54'23", long 97°49'26", NW1/4SW1/4 sec.19, T.11 N., R.4 W., York County, at bridge on county line 4 miles northeast of Hampton.	--	1969-70, 1974-79	10-04-79 03-25-80 05-28-80 07-17-80 09-04-80	0 .15 0 6.8 e.1
Lincoln Creek (06879995)	Big Blue River	Lat 40°57'51", long 97°20'44", NE1/4NW1/4 sec.36, T.12 N., R.1 W., Seward County, at county road bridge 4.5 miles north of Utica.	--	1968-70, 1974-79	10-04-79 03-25-80 05-28-80 07-17-80 09-04-80	0 2.8 .07 6.9 0
West Fork Big Blue River (06880559)	Big Blue River	Lat 40°41'41", long 98°03'06", SW1/4NW1/4 sec.6, T.8 N., R.6 W., Clay County, at county road bridge 3.1 miles northwest of Eldorado.	--	1976-79	10-02-79 04-16-80 05-28-80 07-17-80 09-03-80	3.9 3.8 2.9 24 15
West Fork Big Blue River (06880610)	Big Blue River	Lat 40°43'28", long 97°50'35", in SW1/4SW1/4 sec.19, T.9 N., R.4 W., Hamilton County, at county road bridge 5.4 miles east of Stockham.	--	1969-70, 1974-79	10-02-79 04-16-80 05-29-80 07-16-80 09-03-80	e5 6.1 6.0 24 9.8
School Creek (06880745)	West Fork Big Blue River	Lat 40°38'25", long 97°46'58", in NE1/4NE1/4 sec.25, T.8 N., R.5 W., Clay County, at county road bridge on county line 3 miles northeast of Sutton.	--	1974-79	10-02-79 04-16-80 05-28-80 07-16-80 09-03-80	.14 .23 .12 7.5 e.01
West Fork Big Blue River (06880760)	Big Blue River	Lat 40°47'08", long 97°22'05", in NE1/4NE1/4 sec.1, T.9 N., R.1 W., York County, at bridge on county line 4 miles west of Beaver Crossing.	--	1969-70, 1974-79	10-02-79 03-25-80 05-28-80 07-16-80 09-03-80	17 44 32 35 24

Discharge measurements made at miscellaneous sites during water year 1980--Continued

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		Kansas River basin--Continued				
Beaver Creek (06880770)	West Fork Big Blue River	Lat 40°51'33", long 97°49'26", in SW1/4SW1/4 sec.6, T.10 N., R.4 W., York County, at bridge on county-line road 4 miles southeast of Hampton.	--	1969-70, 1972-79	10-04-79	0
					03-25-80	e.01
					05-29-80	0
					07-17-80	2.7
					09-04-80	e.01
Beaver Creek (06880785)	West Fork Big Blue River	Lat 40°47'49", long 97°20'44", NE1/4SE1/4 sec.25, T.10 N., R.1 W., Seward County, at county road bridge 3.5 miles northwest of Beaver Crossing.	--	1968-70, 1974-79	10-02-79	1.6
					03-25-80	3.4
					05-28-80	1.7
					07-16-80	2.5
					09-03-80	4.3
Indian Creek (06880788)	West Fork Big Blue River	Lat 40°43'15", long 97°21'53", SE1/4NE1/4 sec.25, T.9 N., R.1 W., Seward County, at bridge on county line 1 mile west of Cordova.	--	1969-70, 1974-79	10-02-79	0
					03-25-80	2.1
					05-28-80	0
					07-16-80	.07
					09-03-80	0
Turkey Creek (06881110)	Big Blue River	Lat 40°33'12", long 97°22'05", SW1/4SW1/4 sec.19, T.7 N., R.1 E., Saline County, at bridge on county line 3.7 miles northeast of Milligan.	--	1968-69 1976-79	10-02-79	0
					04-16-80	5.1
					05-29-80	.40
					07-16-80	12
					09-03-80	.16
Big Sandy Creek (06883583)	Little Blue River	Lat 40°21'02", long 97°52'37", in SW1/4SW1/4 sec.34, T.5 N., R.5 W., Clay County, at county road bridge 4 miles southwest of Ong.	--	1970c, 1974-79	10-02-79	0
					04-16-80	e.01
					05-29-80	0
					07-16-80	8.4
					09-03-80	2.4
Little Sandy Creek (06883590)	Big Sandy Creek	Lat 40°22'56", long 97°49'26", in SE1/4SE1/4 sec.24, T.5 N., R.5 W., Clay County, at county road bridge 1.2 miles southeast of Ong.	--	1970, 1974-79	10-02-79	0
					04-16-80	.08
					05-29-80	0
					07-16-80	1.7
					09-03-80	e.01
Dry Sandy Creek (06883925)	Big Sandy Creek	Lat 40°21'02", long 97°32'45", SW1/4SE1/4 sec.33, T.5 N., R.2 W., Fillmore County, at bridge on county line 1.4 miles northeast of Bruning.	--	1976-79	10-02-79	0
					04-16-80	.05
					05-28-80	0
					07-16-80	12
					09-03-80	0

* Also a crest-stage gage.
# Operated as a continuous-record gaging station.
† Also published with additional data elsewhere in this report.
a Gage heights, or gage heights and discharge measurements only.
b Published as a water-quality partial record station.
c Published as a crest stage partial record station.
d Published as a low-flow partial record station.
e Estimate.

LOW-FLOW INVESTIGATIONS

Low-flow investigations were made in the area of the High Plains Regional Aquifer System (RASA) in Nebraska during the 1980 water year to obtain data on ground-water/surface-water relationships. These data will be used to help calibrate numerical models of the hydrologic system of the area.

CHEYENNE RIVER BASIN

Hat Creek basin

Discharge measurements and observations of zero flow were made on the upper drainage to Hat Creek in Sioux County, Nebr., in April 1980. Conditions were good, as only trace amounts of precipitation occurred during the week preceding the measurements. Locations are listed in downstream order.

Location	Observation of zero flow or measured discharge, in cubic feet per second
	April 21-24, 1980
West Hat Creek 5 mi east of Harrison in SW¼SE¼ sec. 33, T.32 N., R.55 W.	0
West Hat Creek 6 mi northeast of Harrison in SE¼NW¼ sec. 21, T.32 N., R.55 W.	1.0
East Hat Creek 6 mi east of Harrison in SE¼SE¼ sec. 34, T.32 N., R.55 W.	0
East Hat Creek 8 mi northeast of Harrison in NE¼NE¼ sec. 22, T.32 N., R.55 W.	.38
Hat Creek 10 mi northeast of Harrison in NW¼NW¼ sec. 35, T.33 N., R.55 W.	2.4
Boggy Creek 11 mi northeast of Harrison in NW¼NW¼ sec. 31, T.33 N., R.54 W.	.13
Warbonnet Creek 9 mi northwest of Harrison in NE¼NW¼ sec. 29, T. 33 N., R.56 W.	2.9
Jim Creek 11 mi northwest of Harrison in NW¼SW¼ sec. 13, T.33 N., R.57 W.	.45
Warbonnet Creek 11 mi north of Harrison in SW¼SW¼ sec. 10, T.33 N., R.56 W.	2.1
Monroe Creek 6 mi northwest of Harrison in SE¼NW¼ sec. 8, T.32 N., R.56 W.	.92
Monroe Creek 10 mi north of Harrison in NW¼NW¼ sec. 23, T.33 N., R.56 W.	.19
Sowbelly Creek 5 mi northeast of Harrison in SE¼SW¼ sec. 18, T.32 N., R.55 W.	2.8
Sowbelly Creek 9 mi northeast of Harrison in NE¼NE¼ sec. 33, T.33 N., R.55 W.	.68
Prairie Dog Creek 11 mi northeast of Harrison in NW¼SW¼ sec. 16, T.33 N., R.55 W.	0
Squaw Creek 13 mi northwest of Harrison in NW¼SE¼ sec. 10, T.33 N., R.57 W.	.52
Squaw Creek 14 mi northwest of Harrison in SE¼SE¼ sec. 31, T.34 N., R.56 W.	.55
Cherry Creek 13 mi northeast of Harrison in NE¼NW¼ sec. 20, T.33 N., R.54 W.	0
South Antelope Creek 14 mi northwest of Harrison in SW¼SE¼ sec. 4, T.33 N., R.57 W.	.12
South Antelope Creek 16 mi northwest of Harrison in NW¼SE¼ sec. 26, T.34 N., R.57 W.	3.6
North Antelope Creek 17 mi northwest of Harrison in SE¼SE¼ sec. 15, T.34 N., R.57 W.	0
Whitehead Creek 18 mi northeast of Harrison in NE¼SE¼ sec. 35, T.34 N., R.54 W.	0

WHITE RIVER BASIN

Discharge measurements and observations of zero flow were made on White River and tributaries in Sioux, Dawes, and Sheridan Counties, Nebr., in April 1980. Conditions were good, as only a trace of precipitation occurred at Chadron during the week preceding the measurements. Locations are listed in downstream order.

Location	Observation of zero flow or measured discharge, in cubic feet per second
	April 21-24, 1980
White River 9 mi doutheast of Harrison in NW¼SW¼ sec. 25, T.31 N., R.55 W.	1.5
Tributary to White River 13 mi southwest of Crawford in SW¼NW¼ sec. 34, T.31 N., R.54 W.	.22
Kyle Creek 13 mi southwest of Crawford in NE¼NE¼ sec. 3, T.30 N., R.54 W.	0
White River 11 mi southwest of Crawford in NE¼NW¼ sec. 1, T.30 N., R.54 W.	8.8
Deep Creek 9 mi southwest of Crawford in NE¼NE¼ sec. 5, T.30 N., R.53 W.	.97
White River 8 mi southwest of Crawford in NW¼NW¼ sec. 34, T.31 N., R.53 W.	15
Dead Man's Creek 6 mi southwest of Crawford in NW¼NW¼ sec. 36, T.31 N., R.53 W.	1.8
South Fork Soldiers Creek 9 mi east of Harrison in SW¼NW¼ sec. 6, T.31 N., R.54 W.	0
Soldiers Creek 8 mi west of Crawford in NE¼NE¼ sec. 5. T.31 N., R.53 W.	4.6
Tributary to Soldiers Creek 7 mi west of Crawford in NE¼NE¼ sec. 4, T.31 N., R.53 W.	0
Soldiers Creek 4 mi southwest of Crawford in NW¼NW¼ sec. 18, T.31 N., R.52 W.	1.7
White River 1 mi southwest of Crawford in SW¼NE¼ sec. 9, T.31 N., R.52 W.	25
Tributary to White River 1 mi southwest of Crawford in NW¼SE¼ sec. 9, T.31 N., R.52 W.	0
White River 1 mi northwest of Crawford in NW¼SE¼ sec. 34, T.32 N., R.52 W.	26
White Clay Creek 5 mi southeast of Crawford in NW¼SE¼ sec. 36, T.31 N., R.52 W.	.94
White Clay Creek 1 mi northeast of Crawford in SW¼SE¼ sec. 35, T.32 N., R.52 W.	4.6
Squaw Creek 5 mi southeast of Crawford in SE¼NE¼ sec. 19, T.31 N., R.51 W.	.98
Squaw Creek 2 mi northeast of Crawford in SW¼SW¼ sec. 36, T.32 N., R.52 W.	.48
Hooker Creek 3 mi northeast of Crawford in SE¼SW¼ sec. 31, T.32 N., R.51 W.	0
Little Cottonwood Creek 10 mi northwest of Crawford in NW¼NW¼ sec. 8, T.32 N., R.53 W.	1.5
Little Cottonwood Creek 6 mi northwest of Crawford in SW¼NE¼ sec. 8, T.32 N., R.52 W.	.20
Sand Creek 13 mi northwest of Crawford in SW¼SW¼ sec. 20, T.33 N., R.53 W.	.06
Sand Creek 10 mi northwest of Crawford in NE¼NE¼ sec. 34, T.33 N., R.53 W.	.14
Sand Creek 8 mi northwest of Crawford in NE¼NE¼ sec. 32, T.33 N., R.52 W.	.06
Spring Creek 4 mi northwest of Crawford in SE¼SE¼ sec. 20, T.32 N., R.52 W.	0
West Ash Creek 8 mi southeast of Crawford in NW¼SW¼ sec. 24, T.31 N., R.51 W.	2.1
West Ash Creek 7 mi northeast of Crawford in SE¼SE¼ sec. 35, T.32 N., R.51 W.	2.8
East Ash Creek 11 mi east of Crawford in NE¼SW¼ sec. 16, T.31 N., R.50 W.	1.4
East Ash Creek 9 mi northeast of Crawford in NW¼SE¼ sec. 32, T.32 N., R.50 W.	1.0

WHITE RIVER BASIN--Continued

Location	Observation of zero flow or measured discharge, in cubic feet per second April 21-24, 1980
Tributary to White River 11 mi east of Crawford in NW¼NW¼ sec. 4, T.31 N., R.50 W.	0
Indian Creek 11 mi northeast of Crawford in SE¼SE¼ sec. 33, T.32 N., R.50 W.	.36
Tributary to Big Cottonwood Creek 11 mi northwest of Crawford in SE¼NW¼ sec. 13, T.33 N., R.53 W.	0
Trunk Butte Creek 12 mi southwest of Chadron in NE¼NW¼ sec. 35, T.32 N., R.50 W.	.42
Trunk Butte Creek 10 mi southwest of Chadron in SE¼SW¼ sec. 14, T.32 N., R.50 W.	.88
East Fork Trunk Butte Creek 10 mi southwest of Chadron in SW¼SW¼ sec. 19, T.32 N., R.49 W.	0
Dead Horse Creek 9 mi southwest of Chadron in NE¼NW¼ sec. 32, T.32 N., R.49 W.	2.2
Dead Horse Creek 7 mi southwest of Chadron in NW¼NE¼ sec. 7, T.32 N., R.49 W.	2.8
Chadron Creek 13 mi south of Chadron in SE¼SE¼ sec. 24, T.31 N., R.49 W.	0
Chadron Creek 11 mi south of Chadron in SE¼NE¼ sec. 7, T.31 N., R.48 W.	.35
Chadron Creek 8 mi south of Chadron in NE¼NW¼ sec. 36, T.32 N., R.49 W.	.91
Chadron Creek 5 mi south of Chadron in SW¼NW¼ sec. 18, T.32 N., R.48 W.	1.6
Chadron Creek 4 mi south of Chadron in SW¼SW¼ sec. 1, T.32 N., R.49 W.	1.5
Chadron Creek 4 mi west of Chadron in NW¼NE¼ sec. 22, T.33 N., R.49 W. (below small dam)	0
Big Bordeaux Creek 12 mi southeast of Chadron in NE¼NE¼ sec. 15, T.31 N., R.48 W.	0
Big Bordeaux Creek 9 mi southeast of Chadron in NW¼SE¼ sec. 27, T.32 N., R.48 W.	1.0
Big Bordeaux Creek 7 mi southeast of Chadron in SW¼SE¼ sec. 11, T.32 N., R.48 W.	1.0
Tributary to Big Bordeaux Creek 7 mi southeast of Chadron in SE¼SE¼ sec. 11, T.32 N., R.48 W.	0
Big Bordeaux Creek 5 mi southeast of Chadron in SW¼SE¼ sec. 36, T.33 N., R.48 W.	0
Big Bordeaux Creek 2 mi east of Chadron in SE¼SE¼ sec. 15, T.33 N., R.48 W.	3.3
Little Bordeaux Creek 3 mi northwest of Hay Springs in NE¼SE¼ sec. 29, T.32 N., R.46 W.	0
Little Bordeaux Creek 5 mi northwest of Hay Springs in SW¼SE¼ sec. 19, T.32 N., R.46 W.	0
Little Bordeaux Creek 9 mi northwest of Hay Springs in NW¼SW¼ sec. 11, T.32 N., R.47 W.	1.0
Little Bordeaux Creek 7 mi southeast of Chadron in NW¼NW¼ sec. 33, T.33 N., R.47 W.	2.7
Little Bordeaux Creek 4 mi east of Chadron in SE¼NE¼ sec. 24, T.33 N., R.48 W.	4.0
Little Bordeaux Creek 3 mi northeast of Chadron in NW¼NW¼ sec. 11, T.33 N., R.48 W.	4.1
Unnamed stream 7 mi northeast of Chadron in SE¼SE¼ sec. 9, T.33 N., R.47 W.	0
Unnamed stream 8 mi northeast of Chadron in NW¼NW¼ sec. 33, T.34 N., R.47 W.	0
Unnamed stream 9 mi northeast of Chadron in SE¼SW¼ sec. 2, T.33 N., R.47 W.	0
Unnamed stream 9 mi northeast of Chadron in NE¼NW¼ sec. 34, T.34 N., R.47 W.	0

Location	April 22	April 23
Beaver Creek 6 mi north of Hay Springs in SW¼NE¼ sec. 10, T.32 N., R.46 W.	0	0
Beaver Creek 9 mi northwest of Hay Springs in SW¼SW¼ sec. 27, T.33 N., R.46 W.	--	.04
Beaver Creek 10 mi northwest of Hay Springs in SE¼NW¼ sec. 21, T.33 N., R.46 W.	--	.24
Beaver Creek 12 mi northwest of Hay Springs in SW¼SE¼ sec. 9, T.33 N., R.46 W.	.79	.85
Beaver Creek 14 mi northwest of Hay Springs in SW¼SW¼ sec. 33, T.34 N., R.46 W.	--	1.9
Beaver Creek 15 mi northwest of Hay Springs in SE¼SE¼ sec. 29, T.34 N., R.46 W.	2.0	--
Little Beaver Creek 9 mi north of Hay Springs in NE¼NE¼ sec. 25, T.33 N., R.46 W.	0	--
Little Beaver Creek 12 mi north of Hay Springs in SE¼SW¼ sec. 2, T.33 N., R.46 W.	.56	.30
Little Beaver Creek 13 mi northwest of Hay Springs in NE¼NW¼ sec. 3, T.33 N., R.46 W.	--	.50
Little Beaver Creek 14 mi northwest of Hay Springs in NE¼NW¼ sec. 33, T.34 N., R.46 W.	--	.72
Little Beaver Creek 15 mi northwest of Hay Springs in NW¼SW¼ sec. 28, T.34 N., R.46 W.	.47	1.1
Beaver Creek 16 mi northwest of Hay Springs in SE¼NE¼ sec. 29, T.34 N., R.46 W.	--	4.9
Beaver Creek 13 mi northeast of Chadron in SW¼NW¼ sec. 34, T.35 N., R.47 W.	5.1	--
White Clay Creek 5 mi northeast of Chadron in NE¼SE¼ sec. 13, T.32 N., R.46 W.	0	--
White Clay Creek 10 mi northeast of Chadron in NE¼NE¼ sec. 29, T.33 N., R.45 W.	.37	.33
White Clay Creek 10 mi south of Whiteclay in SE¼SE¼ sec. 2, T.33 N., R.45 W.	1.1	2.0
Tributary to White Clay Creek 8 mi NW of Rushville in SE¼SW¼ sec. 16, T.33 N., R.44 W.	--	.06
Tributary to White Clay Creek 9 mi south of Whiteclay in SW¼NE¼ sec. 6, T.33 N., R.44 W.	--	0
Tributary to White Clay Creek 8.5 mi south of Whiteclay in SE¼SW¼ sec. 31, T.34 N., R.44 W.	0	--
Tributary to White Clay Creek 7 mi south of Whiteclay in SW¼NW¼ sec. 25, T.34 N., R.45 W.	.01	0
Tributary to White Clay Creek 10 mi southwest of Whiteclay in SW¼SE¼ sec. 32, T.34 N.,R.45W.	0	--
Tributary to White Clay Creek 7 mi southwest of Whiteclay in SW¼SW¼ sec.23, T.34 N., R.45W.	2.1	0
White Clay Creek 4 mi south of Whiteclay in SW¼NE¼ sec. 12, T.34 N., R.45 W.	3.6	4.3
Larrabee Creek 8 mi northeast of Rushville in SE¼SE¼ sec. 17, T.33 N., R.43 W.	0	0
Larrabee Creek 10 mi northeast of Rushville in NE¼SE¼ sec. 6, T.33 N., R.43 W.	--	.34
Tributary to Larrabee Creek 8 mi north of Rushville in SW¼SE¼ sec. 13, T.33 N., R.44 W.	0	0
Tributary to Larrabee Creek 11 mi north of Rushville in SE¼SW¼ sec. 36, T.34 N., R.44 W.	--	0
Larrabee Creek 9 mi southeast of Whiteclay in NE¼SE¼ sec. 26, T.34 N., R.44 W.	2.0	--
Larrabee Creek 6 mi southeast of Whiteclay in NW¼SE¼ sec. 16, T.34 N., R.44 W.	--	1.4
Larrabee Creek 3 mi south of Whiteclay in NE¼SW¼ sec. 6, T.34 N., R.44 W.	3.4	4.4
Patton Creek 4 mi southeast of Whiteclay in SE¼SW¼ sec. 33, T.35 N., R.44 W.	.57	.28
Patton Creek 2 mi south of Whiteclay in NW¼SW¼ sec. 30, T.35 N., R.44 W.	1.1	.41
Craven Creek 11 mi southwest of Whiteclay in SE¼SE¼ sec. 26, T.34 N., R.46 W.	0	--
Craven Creek 8 mi southwest of Whiteclay in NW¼NE¼ sec. 13, T.34 N., R.46 W.	--	0
Craven Creek 7 mi southwest of Whiteclay in SE¼SW¼ sec. 6, T.34 N., R.45 W.	.13	.13
Craven Creek 5 mi southwest of Whiteclay in NW¼NW¼ sec. 4, T.34 N., R.45 W.	--	.08
Craven Creek 2 mi southwest of Whiteclay in NE¼NE¼ sec. 35, T.35 N., R.45 W.	--	.23
White Clay Creek 1 mi south of Whiteclay in SE¼SE¼ sec. 24, T.35 N., R.45 W.	20	11

Location	April 21
Wounded Knee Creek 11 mi northwest of Gordon in NE¼SE¼ sec. 12, T.34 N., R.43 W.	0
Wounded Knee Creek 13 mi northwest of Gordon in SW¼SE¼ sec. 30, T.35 N., R.42 W.	.66
Unnamed stream 13 mi north of Gordon in NW¼NW¼ sec. 25, T.35 N., R.42 W.	0

Location	April 23
Hay Creek 6 mi northwest of Cody in NE¼NE¼ sec. 29, T.35 N., R.34 W.	2.7
Hay Creek 2 mi north of Cody in NW¼NW¼ sec. 31, T.35 N., R.33 W.	3.6

NIOBRARA RIVER BASIN

Discharge measurements and observations of zero flow were made on the Niobrara River and its tributaries in Sioux, Box Butte, Dawes, Sheridan, Cherry, Brown, and Keya Paha Counties, Nebr., in April 1980. Conditions were good, as only a trace of precipitation fell at Harrison at the upstream end and no precipitation occurred at Valentine close to the downstream end during the week preceding the measurements. Locations are listed in downstream order.

Location	Observation of zero flow or measured discharge, in cubic feet per second
	April 21-24, 1980
Tributary to Niobrara River 8 mi southwest of Harrison in NW¼SE¼ sec. 20, T.31 N., R.57 W.	0
Niobrara River 8 mi southwest of Harrison in NW¼SW¼ sec. 21, T.31 N., R.57 W.	7.2
Niobrara River 7 mi southwest of Harrison in SW¼NE¼ sec. 1, T.30 N., R.57 W.	8.0
Tributary to Niobrara River 8 mi southwest of Harrison in NE¼NE¼ sec. 13, T.30 N., R.57 W.	0
Niobrara River 8 mi southwest of Harrison in SE¼NE¼ sec. 18, T.30 N., R.56 W.	5.2
Tributary to Niobrara River at Harrison in NE¼SE¼ sec. 4, T.31 N., R.56 W.	0
Tributary to Niobrara River 8 mi southwest of Harrison in SW¼NW¼ sec. 17, T.30 N., R.56 W.	0
Niobrara River 11 mi southwest of Harrison in SW¼NW¼ sec. 32, T.30 N., R.56 W.	7.3
Niobrara River 8 mi northwest of Agate in SE¼NE¼ sec. 9, T.29 N., R.56 W.	8.0
Niobrara River 5 mi northwest of Agate in NE¼SW¼ sec. 23, T.29 N., R.56 W.	12
Tributary to Niobrara River 5 mi northwest of Agate in NE¼SW¼ sec. 23, T.29 N., R.56 W.	0
Niobrara River at Agate in SE¼SW¼ sec. 6, T.28 N., R.55 W.	16
Niobrara River 3 mi east of Agate in SE¼SE¼ sec. 4, T.28 N., R.55 W.	24
Niobrara River 6 mi east of Agate in SW¼NW¼ sec. 6, T.28 N., R.54 W.	20
Tributary to Niobrara River 6 mi east of Agate in NW¼SW¼ sec. 33, T.29 N., R.54 W.	0
Niobrara River 10 mi east of Agate in SE¼NE¼ sec. 3, T.28 N., R.54 W.	18
Whistle Creek 10 mi southeast of Agate in SW¼NW¼ sec. 3, T.27 N., R.54 W.	.11
Whistle Creek 12 mi east of Agate in NE¼NE¼ sec. 12, T.28 N., R.54 W.	.03
Niobrara River 11 mi west of Marsland in SE¼NE¼ sec. 8, T.28 N., R.53 W.	25
Barngrover Creek 5 mi west of Marsland in NW¼NW¼ sec. 4, T.28 N., R.52 W.	0
Tributary to Barngrover Creek 4 mi west of Marsland in NW¼NE¼ sec. 4, T.28 N., R.52 W.	0
Niobrara River 5 mi southwest of Marsland in NE¼SE¼ sec. 9, T.28 N., R.52 W.	28
Niobrara River 1 mi south of Marsland in NW¼SW¼ sec. 5, T.28 N., R.51 W.	30
Tributary to Niobrara River at Marsland in SE¼NW¼ sec. 33, T.29 N., R.51 W.	0
Niobrara River 2 mi east of Marsland in NW¼NW¼ sec. 36, T.29 N., R.51 W.	39
Tributary to Niobrara River 3 mi northeast of Marsland in SE¼NE¼ sec. 23, T.29 N., R.51 W.	0
Tributary to Niobrara River 3 mi northeast of Marsland in SE¼SE¼ sec. 25, T.29 N., R.51 W.	0
Tributary to Niobrara River 5 mi northeast of Marsland in SE¼NE¼ sec. 12, T.29 N., R.51 W.	0
Tributary to Niobrara River 6 mi northeast of Marsland in SW¼SW¼ sec. 22, T.29 N., R.50 W.	0
Niobrara River above Box Butte Reservoir in SW¼NE¼ sec. 27, T.29 N., R.50 W.	41
Willow Creek 9 mi northeast of Marsland in NW¼SW¼ sec. 28, T.30 N., R.50 W.	0
Willow Creek 8 mi northeast of Marsland in SW¼SE¼ sec. 23, T.29 N., R.50 W.	0
Niobrara River below Box Butte Reservoir in NE¼NE¼ sec. 33, T.29 N., R.49 W.	2.8
Niobrara River near Dunlap in NE¼NE¼ sec. 32, T.29 N., R.48 W.	10
Dry Creek 5 mi south of Marsland in NW¼SW¼ sec. 29, T.28 N., R.51 W.	0
Dry Creek 4 mi north of Hemingford in SW¼SW¼ sec. 20, T.28 N., R.49 W.	0
Dry Creek tributary 4 mi northeast of Hemingford in NW¼NE¼ sec. 28, T.28 N., R.49 W.	0
Dry Creek 8 mi northeast of Hemingford in NE¼SE¼ sec. 12, T.28 N., R.49 W.	0
Cottonwood Creek 11 mi northeast of Marsland in NW¼NE¼ sec. 22, T.30 N., R.50 W.	0
Cottonwood Creek 3 mi north of Box Butte Dam in NE¼NE¼ sec. 16, T.29 N., R.49 W.	0
Pebble Creek 8 mi north of Box Butte Dam in SW¼SW¼ sec. 14, T.30 N., R.49 W.	0
Pebble Creek 3 mi north of Dunlap in SW¼SE¼ sec. 8, T.29 N., R.48 W.	.15
Cottonwood Creek 2 mi northeast of Dunlap in SE¼SE¼ sec. 22, T.29 N., R.48 W.	1.1
Niobrara River 5 mi east of Dunlap in SE¼NE¼ sec. 30, T.29 N., R.47 W.	19
Pepper Creek 5 mi northeast of Dunlap in SE¼SW¼ sec. 1, T.29 N., R.48 W.	0
Pepper Creek 8 mi east of Dunlap in SE¼SE¼ sec. 22, T.29 N., R.47 W.	0
Unnamed draw 9 mi northeast of Dunlap in SW¼SW¼ sec. 2, T.29 N., R.47 W.	0
Niobrara River 14 mi south of Hay Springs in NW¼NW¼ sec. 23, T.29 N., R.46 W.	34
Box Butte Creek 10 mi southeast of Hemingford in SE¼NE¼ sec. 3, T.26 N., R.48 W.	0
Box Butte Creek 12 mi southeast of Hemingford in SW¼NW¼ sec. 7, T.26 N., R.47 W.	0
Box Butte Creek 15 mi southeast of Hemingford in NE¼NW¼ sec. 3, T.26 N., R.47 W.	0
Box Butte Creek tributary 4 mi east of Hemingford in NW¼NW¼ sec. 12, T.27 N., R.49 W.	0
Box Butte Creek tributary 6 mi east of Hemingford in NE¼NW¼ sec. 17, T.27 N., R.48 W.	.21
Box Butte Creek tributary 8 mi southeast of Hemingford in SE¼SE¼ sec. 16, T.27 N., R.48 W.	1.8
Box Butte Creek tributary 9 mi southeast of Hemingford in SE¼SE¼ sec. 22, T.27 N., R.48 W.	1.2
Box Butte Creek tributary 11 mi southeast of Hemingford in NE¼NE¼ sec. 36, T.27 N., R.48 W.	.95
Box Butte Creek tributary 13 mi southeast of Hemingford in NW¼SW¼ sec. 33, T.27 N., R.47 W.	1.3
Box Butte Creek 16 mi southeast of Hemingford in NE¼SE¼ sec. 26, T.27 N., R.47 W.	1.7
Box Butte Creek tributary 7 mi east of Hemingford in SE¼NE¼ sec. 16, T.27 N., R.48 W.	0
Box Butte Creek tributary 8 mi east of Hemingford in NE¼SE¼ sec. 15, T.27 N., R.48 W.	.02
Box Butte Creek tributary 10 mi east of Hemingford in NE¼SE¼ sec. 13, T.27 N., R.48 W.	.20
Box Butte Creek tributary 12 mi east of Hemingford in SW¼NW¼ sec. 16, T.27 N., R.47 W.	.40
Box Butte Creek tributary 16 mi southeast of Hemingford in SE¼SE¼ sec. 23, T.27 N., R.47 W.	.13
Box Butte Creek 17 mi east of Hemingford in NE¼NW¼ sec. 18, T.27 N., R.46 W.	5.7
Box Butte Creek tributary 16 mi northeast of Hemingford in NW¼NE¼ sec. 23, T.28 N., R.47 W.	0
Box Butte Creek 19 mi south of Hay Springs in NW¼NW¼ sec. 16, T.28 N., R.46 W.	9.7
Box Butte Creek 16 mi southeast of Hay Springs in SE¼SE¼ sec. 30, T.29 N., R.45 W.	10
Box Butte Creek tributary 16 mi southeast of Hay Springs in NE¼SW¼ sec. 29, T.29 N., R.45 W.	0
Niobrara River 15 mi southeast of Hay Springs in NE¼SE¼ sec. 20, T.29 N., R.45 W.	44
Tributary to Niobrara River 17 mi southeast of Hay Springs in NW¼SE¼ sec. 27, T.29 N., R.45 W.	0
Niobrara River 14 mi southeast of Hay Springs in SE¼SE¼ sec. 2, T.29 N., R.45 W.	56
Unnamed stream 12 mi southeast of Hay Springs in SW¼SW¼ sec. 35, T.30 N., R.45 W.	0
Spring Creek 8 mi south of Hay Springs in NW¼NW¼ sec. 23, T.30 N., R.46 W.	0
Spring Creek 11 mi southeast of Hay Springs in SW¼SW¼ sec. 26, T.30 N., R.45 W.	0

NIOBRARA RIVER BASIN--Continued

Location	Observation of zero flow or measured discharge, in cubic feet per second April 21-24, 1980
Pine Creek 16 mi mouth of Rushville in SW¼SW¼ sec. 13, T.29 N., R.44 W.	21
Pine Creek 12 mi south of Rushville in SW¼SW¼ sec. 27, T.30 N., R.44 W.	25
Niobrara River 11 mi south of Rushville in NW¼SE¼ sec. 22, T.30 N., R.44 W.	94
Niobrara River 10 mi southeast of Rushville in NW¼SE¼ sec. 18, T.30 N., R.43 W.	100
Niobrara River 10 mi southeast of Rushville in NW¼SE¼ sec. 36, T.31 N., R.43 W.	119
Rush Creek at Rushville in SW¼SE¼ sec. 28, T.32 N., R.44 W.	0
Tributary to Rush Creek 3 mi west of Rushville in SW¼NE¼ sec. 31, T.32 N., R.44 W.	0
Rush Creek 1 mi south of Rushville in SE¼SE¼ sec. 33, T.32 N., R.44 W.	0
Hay Springs Creek 2 mi southwest of Hay Springs in SE¼SE¼ sec. 16, T.31 N., R.46 W.	0
Hay Springs Creek 3 mi south of Hay Springs in NW¼NW¼ sec. 26, T.31 N., R.46 W.	.17
Tributary to Hay Springs Creek 1 mi west of Hay Springs in SE¼SW¼ sec. 3, T.31 N., R.46 W.	0
Tributary to Hay Springs Creek 1 mi southeast of Hay Springs in NW¼NW¼ sec. 13, T.31 N., R.46 W.	0
Hay Springs Creek 6 mi southwest of Rushville in NW¼SW¼ sec. 13, T.31 N., R.45 W.	0
Tributary to Hay Springs Creek 6 mi west of Rushville in SW¼SW¼ sec. 35, T.32 N., R.45 W.	0
Tributary to Hay Springs Creek 3 mi southwest of Rushville in NW¼SW¼ sec. 5, T.31 N., R.44 W.	0
Rush Creek 3 mi south of Rushville in SE¼SE¼ sec. 10, T.31 N., R.44 W.	0
Rush Creek 7 mi southeast of Rushville in SE¼NE¼ sec. 32, T.31 N., R.43 W.	.22
Rush Creek 10 mi southeast of Rushville in SE¼SW¼ sec. 30, T.31 N., R.42 W.	.11
Niobrara River 11 mi south of Gordon in SW¼NE¼ sec. 26, T.31 N., R.42 W.	124
Sand Draw 9 mi south of Gordon in NW¼NW¼ sec. 13, T.31 N., R.42 W.	0
Niobrara River 11 mi southeast of Gordon in NW¼SE¼ sec. 15, T.31 N., R.41 W.	142
Tributary to Niobrara River 5 mi southeast of Gordon in SE¼NE¼ sec. 19, T.32 N., R.41 W.	0
Niobrara River 11 mi southeast of Gordon in NE¼NE¼ sec. 28, T.32 N., R.40 W.	152
Antelope Creek 1 mi northwest of Gordon in SW¼SW¼ sec. 24, T.33 N., R.42 W.	0
Antelope Creek tributary 2 mi north of Gordon in NE¼SE¼ sec. 13, T.33 N., R.42 W.	0
Antelope Creek 1 mi southeast of Gordon in SW¼SW¼ sec. 29, T.33 W., R.41 W.	0
Antelope Creek 6 mi southwest of Gordon in SW¼NW¼ sec. 12, T.32 N., R.41 W.	0
Antelope Creek tributary 5 mi east of Gordon in SE¼SE¼ sec. 26, T.33 N., R.41 W.	0
Antelope Creek 11 mi southeast of Gordon in SW¼SE¼ sec. 21, T.32 N., R.40 W.	.24
Niobrara River 15 mi southwest of Merriman in NE¼NE¼ sec. 16, T.32 N., R.39 W.	164
Niobrara River 8 mi south of Merriman in NE¼NW¼ sec. 30, T.33 N., R.37 W.	195
Leander Creek 10 mi southwest of Merriman in NE¼NE¼ sec. 11, T.33 N., R.39 W.	1.3
Leander Creek 6 mi southwest of Merriman in SW¼SW¼ sec. 21, T.34 N., R.38 W.	4.1
Leander Creek 3 mi south of Merriman in SW¼NW¼ sec. 33, T.34 N., R.37 W.	1.7
Niobrara River 7 mi south of Eli in NW¼SW¼ sec. 11, T.33 N., R.36 W.	251
Niobrara River 7 mi southeast of Eli in NE¼SW¼ sec. 3, T.33 N., R.35 W.	251
Bear Creek 4 mi northwest of Merriman in NE¼NE¼ sec. 10, T.34 N., R.38 W.	4.6
Bear Creek 1 mi north of Merriman in SE¼NW¼ sec. 8, T.34 N., R.37 W.	6.8
Dry Creek tributary 7 mi north of Gordon in SE¼NE¼ sec. 23, T.34 N., R.42 W.	0
Dry Creek 15 mi west of Merriman in SW¼SE¼ sec. 11, T.34 N., R.40 W.	1.6
Dry Creek 12 mi west of Merriman in NE¼SE¼ sec. 17, T.34 N., R.39 W.	3.1
Dry Creek 9 mi west of Merriman in NE¼NW¼ sec. 13, T.34 N., R.39 W.	3.9
Dry Creek 3 mi west of Merriman in SE¼NW¼ sec. 14, T.34 N., R.38 W.	4.9
Bear Creek tributary 5 mi northeast of Merriman in NW¼NE¼ sec. 1, T.34 N., R.37 W.	.21
Bear Creek 2 mi southwest of Eli in SW¼NW¼ sec. 14, T.34 N., R.36 W.	13
Bear Creek 4 mi southeast of Eli in SW¼SE¼ sec. 28, T.34 N., R.35 W.	16
Niobrara River 7 mi southwest of Cody in NE¼SE¼ sec. 9, T.33 N., R.34 W.	274
Niobrara River 8 mi south of Cody in NE¼NE¼ sec. 23, T.33 N., R.34 W.	286
Medicine Creek 17 mi southwest of Eli in SE¼SW¼ sec. 33, T.32 N., R.36 W.	0
Medicine Creek 14 mi southeast of Eli in NW¼SW¼ sec. 20, T.32 N., R.35 W.	0
Medicine Creek 9 mi south of Cody in NW¼SE¼ sec. 29, T.33 N., R.33 W.	7.0
Niobrara River 9 mi southeast of Cody in NW¼NW¼ sec. 28, T.33 N., R.33 W.	323
Niobrara River 9 mi south of Nenzel in SW¼SW¼ sec. 29, T.33 N., R.32 W.	351
McCann Canyon 10 mi southwest of Kilgore in NW¼NW¼ sec. 32, T.33 N., R.31 W.	1.8
Niobrara River 10 mi south of Kilgore in SW¼NW¼ sec. 31, T.33 N., R.31 W.	412
McFarland Canyon 10 mi south of Kilgore in NE¼NE¼ sec. 33, T.33 N., R.31 W.	.35
Mecham Canyon 10 mi southeast of Kilgore in SE¼NE¼ sec. 35, T.33 N., R.31 W.	.01
Niobrara River 11 mi southeast of Kilgore in SW¼SW¼ sec. 36, T.33 N., R.31 W.	416
Snake River 19 mi southeast of Gordon in NE¼SE¼ sec. 32, T.30 N., R.41 W.	0
Snake River 18 mi southeast of Gordon in NW¼NW¼ sec. 21, T.30 N., R.40 W.	.91
Snake River 24 mi south of Merriman in SE¼SW¼ sec. 18, T.30 N., R.37 W.	53
Clifford Creek 31 mi southwest of Merriman in NW¼NW¼ sec. 19, T.29 N., R.38 W.	0
Clifford Creek 30 mi south of Merriman in NW¼SE¼ sec. 7, T.29 N., R.37 W.	.36
Willow Creek 32 mi southwest of Merriman in SE¼SE¼ sec. 9, T.29 N., R.39 W.	0
Willow Creek 30 mi southwest of Merriman in NW¼SW¼ sec. 7, T.29 N., R.38 W.	.01
Willow Creek 29 mi south of Merriman in NE¼SW¼ sec. 6, T.29 N., R.37 W.	.19
Snake River 22 mi south of Cody in NE¼NW¼ sec. 2, T.30 N., R.34 W.	150
Snake River above Merritt Reservoir in NW¼SW¼ sec. 3, T.30 N., R.32 W. (gage rating discharge)	250
Boardman Creek 27 mi south of Cody in SW¼SW¼ sec. 26, T.30 N., R.34 W.	0
Boardman Creek 27 mi south of Cody in NE¼SE¼ sec. 30, T.30 N., R.33 W.	2.6
Boardman Creek 27 mi south of Nenzel in SW¼NE¼ sec. 32, T.30 N., R.32 W.	6.0
Boardman Creek 28 mi south of Kilgore in SE¼SE¼ sec. 32, T.30 N., R.31 W.	11
Boardman Creek at Merritt Reservoir (mouth) in NE¼NE¼ sec. 14, T.30 N., R.31 W.	13
Snake River near Burge (gage) in NE¼ sec. 20, T.31 N., R.30 W.	207
Snake River below Snake River Falls in NE¼NE¼ sec. 8, T.31 N., R.30 W.	203
Steer Creek 16 mi southwest of Cody in NW¼SW¼ sec. 32, T.32 N., R.34 W.	.37
Steer Creek 14 mi south of Nenzel in SE¼NW¼ sec. 30, T.32 N., R.32 W.	0
Steer Creek tributary 17 mi south of Cody in SW¼SE¼ sec. 1, T.31 N., R.34 W.	.02
Steer Creek tributary 16 mi south of Nenzel in NE¼SW¼ sec. 33, T.32 N., R.32 W.	0

NIOBRARA RIVER BASIN--Continued

Location	Observation of zero flow or measured discharge, in cubic feet per second
	April 21-24, 1980
Snake River at mouth 11 mi south of Crookston in SE¼SE¼ sec. 2, T.32 N., R.30 W.	233
Niobrara River 8 mi southwest of Valentine in NE¼NE¼ sec. 25, T.33 N., R.29 W.	632
Gordon Creek 34 mi southwest of Merriman in NE¼SW¼ sec. 31, T.29 N., R.38 W.	.01
Gordon Creek 33 mi southwest of Merriman in NE¼SW¼ sec. 34, T.29 N., R.38 W.	.19
Gordon Creek 33 mi south of Merriman in SW¼SW¼ sec. 30, T.29 N., R.37 W.	3.3
Sand Creek 32 mi southwest of Merriman in SW¼SW¼ sec. 21, T.29 N., R.38 W.	0
Sand Creek 32 mi south of Merriman in NW¼SW¼ sec. 19, T.29 N., R.37 W.	.44
Gordon Creek 32 mi southeast of Merriman in SW¼NE¼ sec. 21, T.29 N., R.36 W.	8.4
Arkansas Flats 31 mi southwest of Merriman in SW¼SW¼ sec. 14, T.29 N., R.38 W.	0
Arkansas Flats 30 mi south of Merriman in NE¼SW¼ sec. 18, T.29 N., R.37 W.	.13
Arkansas Flats 30 mi southeast of Merriman in SW¼SE¼ sec. 14, T.29 N., R.37 W.	1.2
Gordon Creek 32 mi southwest of Cody in NE¼NE¼ sec. 15, T.29 N., R.35 W.	12
Gordon Creek 30 mi south of Cody in SW¼NE¼ sec. 9, T.29 N., R.34 W.	8.7
Betsy (Carver) Creek 34 mi southeast of Merriman in SE¼SE¼ sec. 4, T.28 N., R.37 W.	.02
Betsy (Carver) Creek 36 mi southeast of Merriman in NE¼SE¼ sec. 7, T.28 N., R.36 W.	6.5
Betsy (Carver) Creek 37 mi southwest of Cody in NW¼SW¼ sec. 6, T.28 N., R.35 W.	7.3
Betsy (Carver) Creek 30 mi south of Cody in SE¼SW¼ sec. 10, T.29 N., R.34 W.	8.5

	April 23-24	April 28-30
Gordon Creek 9 mi southwest of Merritt Dam in SW¼NE¼ sec. 11, T.29 N., R.31 W.	18	13
Gordon Creek 7 mi south of Merritt Dam in SE¼SW¼ sec. 32, T.30 N., R.30 W.	--	12
Gordon Creek 8 mi southeast of Merritt Dam in NW¼SE¼ sec. 4, T.30 N., R.29 W.	--	18
Gordon Creek 8 mi southwest of Valentine in NE¼SW¼ sec. 30, T.33 N., R.28 W.	--	35
Schlagel Creek 16 mi southwest of Valentine in NE¼NE¼ sec. 20, T.31 N., R.28 W.	0	--
Schlagel Creek 15 mi southwest of Valentine in NW¼SE¼ sec. 8, T.31 N., R.28 W.	.64	--
Schlagel Creek 4 mi south of Valentine in SE¼NE¼ sec. 24, T.33 N., R.28 W.	13	--
Niobrara River 3 mi south of Valentine in SW¼NW¼ sec. 17, T.33 N., R.27 W.	694	--
Minnechaduza Creek 4 mi northeast of Kilgore in SE¼SE¼ sec. 24, T.35 N., R.31 W.	15	--
Minnechaduza Creek tributary 4 mi northeast of Kilgore in NW¼NE¼ sec. 30, T.35 N., R.30 W.	.35	--
Bull Creek 6 mi northeast of Kilgore in SE¼SW¼ sec. 27, T.35 N., R.30 W.	.55	--
Minnechaduza Creek 3 mi northwest of Crookston in SE¼NW¼ sec. 1, T.34 N., R.30 W.	24	--
Dry Creek 2 mi northwest of Crookston in NE¼NW¼ sec. 7, T.34 N., R.29 W.	0	--
Minnechaduza Creek 3 mi southeast of Crookston in NE¼SW¼ sec. 23, T.34 N., R.29 W.	35	--
Minnechaduza Creek tributary 5 mi northeast of Crookston in NE¼NE¼ sec. 36, T.35 N., R.29 W.	0	--
Minnechaduza Creek tributary 4 mi east of Crookston in NW¼NW¼ sec. 18, T.34 N., R.29 W.	.23	--
Minnechaduza Creek at Valentine in NW¼NE¼ sec. 36, T.34 N., R.28 W.	44	--
Minnechaduza Creek at Valentine in SW¼SW¼ sec. 30, T.34 N., R.27 W. (gage rating discharge)	32	--
Fishberry Creek 3 mi north of Valentine in NW¼NW¼ sec. 13, T.34 N., R.28 W.	0	--
Fishberry Creek 1 mi northeast of Valentine in NW¼NW¼ sec. 29, T.34 N., R.27 W.	.16	--
Spring Creek 5 mi north of Valentine in NW¼NW¼ sec. 5, T.35 N., R.27 W.	0	--
Spring Creek 2 mi northeast of Valentine in NW¼NW¼ sec. 28, T.34 N., R.27 W.	1.2	--
Minnechaduza Creek 4 mi northeast of Valentine in NE¼NW¼ sec. 27, T.34 N., R.27 W.	7.1	--
Niobrara River 4 mi northeast of Valentine in SE¼SW¼ sec. 22, T.34 N., R.27 W.	893	--
Big Beaver Creek 6 mi northeast of Valentine in NW¼NE¼ sec. 3, T.34 N., R.27 W.	.01	--
Big Beaver Creek 7 mi northeast of Valentine in NE¼NE¼ sec. 11, T.34 N., R.27 W.	.02	--
Little Beaver Creek 8 mi northeast of Valentine in NE¼NE¼ sec. 1, T.34 N., R.27 W.	0	--
Little Beaver Creek 8 mi northeast of Valentine in NE¼NW¼ sec. 7, T.34 N., R.26 W.	0	--
Niobrara River tributary 9 mi east of Valentine in SE¼NW¼ sec. 21, T.34 N., R.26 W.	1.8	--
Niobrara River tributary 10 mi east of Valentine in SW¼NE¼ sec. 27, T.34 N., R.26 W.	--	0
Niobrara River near Sparks (gage) in NW¼SE¼ sec. 22, T.34 N., R.26 W.	834	823
Niobrara River tributary 6 mi southwest of Sparks in NW¼SE¼ sec. 22, T.34 N., R.26 W.	4.5	4.2

	April 28-30
Niobrara River 4 mi south of Sparks in SE¼NE¼ sec. 33, T.34 N., R.25 W.	907
Niobrara River tributary 5 mi south of Sparks in SW¼SW¼ sec. 34, T.34 N., R.25 W.	.51
Niobrara River tributary 5 mi south of Sparks in SE¼SW¼ sec. 34, T.34 N., R.25 W.	.87
Clapp Creek 6 mi southeast of Sparks in NW¼SW¼ sec. 1, T.33 N., R.25 W.	.23
Niobrara River tributary 7 mi southeast of Sparks in SE¼NE¼ sec. 12, T.33 N., R.25 W.	.09
Niobrara River 7 mi southeast of Sparks in SE¼NE¼ sec. 12, T.33 N., R.25 W.	905
Niobrara River tributary 5 mi southwest of Norden in NE¼NE¼ sec. 17, T.33 N., R.24 W.	.43
Coleman Creek 5 mi northeast of Norden in SE¼SW¼ sec. 29, T.33 N., R.24 W.	0
Coleman Creek 4 mi southwest of Norden in SE¼SE¼ sec. 16, T.33 N., R.24 W.	.80
Muleshoe Creek 4 mi southwest of Norden in NW¼NW¼ sec. 22, T.33 N., R.24 W.	2.5
McGuire Creek 2 mi southwest of Norden in SW¼SE¼ sec. 11, T.33 N., R.24 W.	0
McGuire Creek 5 mi south of Norden in SE¼SE¼ sec. 25, T.33 N., R.24 W.	.67
Fairfield Creek 11 mi northwest of Wood Lake in NE¼SE¼ sec. 24, T.32 N., R.27 W.	0
Fairfield Creek 11 mi northwest of Wood Lake in NW¼SW¼ sec. 17, T.32 N., R.26 W.	.03
Fairfield Creek 9 mi northwest of Wood Lake in SE¼NE¼ sec. 12, T.32 N., R.26 W.	1.5
Fairfield Creek tributary 9 mi north of Wood Lake in NE¼SW¼ sec. 8, T.32 N., R.25 W.	.10
Fairfield Creek 9 mi north of Wood Lake in NE¼SW¼ sec. 9, T.32 N., R.25 W.	2.2
South Branch Fairfield Creek 7 mi north of Wood Lake in SW¼SW¼ sec. 15, T.32 N., R.25 W.	.34
Fairfield Creek 6 mi south of Norden in NE¼SE¼ sec. 31, T.33 N., R.23 W.	25
East Middle Creek 5 mi south of Norden in NE¼NW¼ sec. 32, T.33 N., R.23 W.	.50
Middle Creek 5 mi south of Norden in NE¼NW¼ sec. 32, T.33 N., R.23 W.	1.3
Niobrara River near Norden (gage) in NE¼SW¼ sec. 33, T.33 N., R.23 W.	882
Niobrara River tributary 6 mi southeast of Norden in SW¼NE¼ sec. 34, T.33 N., R.23 W.	.01
Turkey Creek 8 mi southeast of Norden in NW¼NE¼ sec. 2, T.32 N., R.23 W.	2.5
Chimney Creek 5 mi northwest of Meadville in SE¼NE¼ sec. 6, T.32 N., R.22 W.	.89
Niobrara River 2 mi northwest of Meadville in NW¼NW¼ sec. 10, T.32 N., R.22 W.	896
Cub Creek 2 mi northwest of Meadville in NW¼SE¼ sec. 3, T.32 N., R.22 W.	1.9

NIOBRARA RIVER BASIN--Continued

Location	Observation of zero flow or measured discharge, in cubic feet per second
	April 28-30
North Branch Plum Creek 8 mi southwest of Wood Lake in NE¼SE¼ sec. 27, T.30 N., R.26 W.	3.4
North Branch Plum Creek tributary 11 mi southwest of Wood Lake in SE¼NW¼ sec. 4, T.29 N., R.26 W.	.26
North Branch Plum Creek 7 mi south of Wood Lake in NW¼NW¼ sec. 29, T.30 N., R.25 W.	4.4
North Branch Plum Creek 5 mi southwest of Johnstown in NE¼SE¼ sec. 20, T.30 N., R.24 W.	5.2
Brush Creek 5 mi southwest of Johnstown in NE¼SE¼ sec. 20, T.30 N., R.24 W.	.29
South Branch Plum Creek 9 mi south of Wood Lake in SE¼NW¼ sec. 4, T.29 N., R.25 W.	0
South Branch Plum Creek 6 mi southwest of Johnstown in SW¼SW¼ sec. 4, T.29 N., R.24 W.	1.2
Plum Creek 2 mi west of Johnstown in NW¼SW¼ sec. 14, T.30 N., R.24 W.	26
Evergreen Creek 4 mi northwest of Wood Lake in NE¼NE¼ sec. 13, T.31 N., R.26 W.	.11
Evergreen Creek 1 mi northwest of Wood Lake in NE¼SW¼ sec. 21, T.31 N., R.25 W.	.51
Rush Creek 6 mi southwest of Wood Lake in NE¼SE¼ sec. 34, T.31 N., R.26 W.	0
Rush Creek 2 mi south of Wood Lake in SE¼SE¼ sec. 33, T.31 N., R.25 W.	0
Rush Creek 5 mi northwest of Johnstown in NE¼SE¼ sec. 5, T.30 N., R.24 W.	.86
Dry Creek 7 mi southwest of Wood Lake in SE¼SE¼ sec. 15, T.30 N., R.26 W.	0
Dry Creek 5 mi south of Wood Lake in NE¼SW¼ sec. 17, T.30 N., R.25 W.	Trace
Dry Creek 4 mi northwest of Johnstown in SE¼SW¼ sec. 4, T.30 N., R.24 W.	0
Plum Creek 6 mi north of Johnstown in SW¼SE¼ sec. 7, T.31 N., R.23 W.	76
Plum Creek 5 mi southwest of Meadville in NW¼NW¼ sec. 33, T.32 N., R.22 W.	97
Plum Creek at Meadville in SE¼SW¼ sec. 11, T.32 N., R.22 W.	114
Niobrara River at Meadville in SE¼SW¼ sec. 12, T.32 N., R.22 W.	949
Rock Creek at Meadville in SE¼SW¼ sec. 1, T.32 N., R.22 W.	3.3
Niobrara River tributary 1 mi east of Meadville in SE¼SW¼ sec. 7, T.32 N., R.21 W.	.02
Jewett Creek 3 mi east of Meadville in NW¼SW¼ sec. 9, T.32 N., R.21 W.	1.4
Skinner Creek 4 mi southeast of Meadville in NW¼SE¼ sec. 15, T.32 N., R.21 W.	.65
Niobrara River 6 mi south of Springview in NW¼NE¼ sec. 23, T.32 N., R.21 W.	915
Dry Creek 5 mi south of Springview in NW¼NE¼ sec. 14, T.32 N., R.21 W.	.20
Prosser Creek 5 mi southeast of Springview in NE¼SE¼ sec. 13, T.32 N., R.21 W.	.36
Thomas Creek 6 mi southeast of Springview in SE¼SE¼ sec. 7, T.32 N., R.20 W.	.61
Barnard Creek 7 mi southeast of Springview in SE¼SW¼ sec. 16, T.32 N., R.20 W.	.34
Rickman Creek 8 mi southeast of Springview in NW¼NE¼ sec. 22, T.32 N., R.20 W.	.75
Beeman Creek 9 mi southeast of Springview in SW¼NE¼ sec. 23, T.32 N., R.20 W.	1.3
Wentworth Creek 10 mi southeast of Springview in SE¼NW¼ sec. 24, T.32 N., R.20 W.	.02
Wyman Creek 11 mi southeast of Springview in SE¼NE¼ sec. 19, T.32 N., R.19 W.	2.1
Niobrara River tributary 13 mi southeast of Burton in SE¼NW¼ sec. 18, T.32 N., R.18 W.	.45
Hougan Creek 8 mi southeast of Mills in SW¼SE¼ sec. 15, T.33 N., R.18 W.	0
Hougan Creek 12 mi southeast of Mills in NE¼SE¼ sec. 32, T.33 N., R.17 W.	2.0
Niobrara River tributary 12 mi southeast of Mills in SE¼SW¼ sec. 27, T.33 N., R.17 W.	.03
Simms Creek 12 mi southeast of Mills in SE¼NE¼ sec. 27, T.33 N., R.17 W.	1.1
Keya Paha River tributaries	
Shadley Creek 8 mi northwest of Nordon in SW¼SW¼ sec. 27, T.35 N., R.24 W.	.05
Lost Creek 7 mi northeast of Norden in SE¼SW¼ sec. 34, T.35 N., R.23 W.	.08
Cottonwood Creek 10 mi northeast of Norden in SE¼NW¼ sec. 10, T.34 N., R.22 W.	.05
Holt Creek 6 mi northwest of Springview in NW¼NW¼ sec. 29, T.34 N., R.21 W.	0
Holt Creek 5 mi northwest of Springview in SE¼SE¼ sec. 21, T.34 N., R.21 W.	.48
Holt Creek 9 mi northwest of Springview in SE¼SW¼ sec. 34, T.35 N., R.21 W.	2.1
East Holt Creek 2 mi north of Springview in NW¼NW¼ sec. 12, T.33 N., R.21 W.	0
East Holt Creek 5 mi north of Springview in SW¼SE¼ sec. 24, T.34 N., R.21 W.	.19
Burton Creek 5 mi east of Springview in NW¼NW¼ sec. 23, T.33 N., R.20 W.	0
Burton Creek 5 mi northeast of Springview in NE¼NW¼ sec. 14, T.33 N., R.20 W.	.17
Burton Creek tributary 6 mi northeast of Springview in SW¼SW¼ sec. 12, T.33 N., R.20 W.	0
Burton Creek at Burton in SW¼NW¼ sec. 20, T.34 N., R.19 W.	2.1
Spring Creek 8 mi south of Burton in SE¼SE¼ sec. 29, T.33 N., R.19 W.	0
Spring Creek tributary 9 mi southeast of Burton in SW¼SW¼ sec. 35, T.33 N., R.19 W.	0
Spring Creek 7 mi southeast of Burton in SE¼SE¼ sec. 15, T.33 N., R.19 W.	.20
Coon Creek 3 mi southeast of Mills in NE¼NW¼ sec. 24, T.34 N., R.18 W.	.73
Oak Creek 8 mi southeast of Mills in SW¼SW¼ sec. 27, T.34 N., R.17 W.	.34
Oak Creek tributary 7 mi southeast of Mills in SE¼SW¼ sec. 28, T.34 N., R.17 W.	.43

Discharge measurements and observations of zero flow were made on southside tributaries in the lower Niobrara River drainage and on Bazile Creek and its tributaries in Brown, Rock, Holt, Antelope, and Knox Counties, Nebr., in October 1979. Conditions were good, as only scattered trace amounts of precipitation occurred in the area during the week preceding the measurements. Locations are listed in downstream order.

Niobrara River Basin

Location	Observation of zero flow or measured discharge, in cubic feet per second
	October 3-4
Long Pine Creek tributary 6 mi southwest of Long Pine in SW¼NW¼ sec. 17, T.29 N., R.21 W.	0
Long Pine Creek tributary 7 mi southwest of Long Pine in NW¼NW¼ sec. 35, T.29 N., R.21 W.	0
Long Pine Creek tributary 5 mi southwest of Long Pine in NW¼NW¼ sec. 24, T.29 N., R.21 W.	2.6
Long Pine Creek 4 mi south of Long Pine in SE¼NE¼ sec. 19, T.29 N., R.20 W.	11
Long Pine Creek at Long Pine in NE¼NW¼ sec. 30, T.30 N., R.20 W.	53
Willow Creek 5 mi southwest of Long Pine in NW¼NW¼ sec. 4, T.29 N., R.21 W.	0
Willow Creek 3 mi west of Long Pine in NE¼SE¼ sec. 27, T.30 N., R.21 W.	0
Willow Creek 1 mi west of Long Pine in NE¼SE¼ sec. 25, T.30 N., R.21 W.	.56
Willow Creek tributary 4 mi northwest of Long Pine in SW¼SW¼ sec. 21, T.30 N., R.21 W.	0
Willow Creek tributary 2 mi northwest of Long Pine in SW¼NW¼ sec. 24, T.30 N., R.21 W.	.02
Willow Creek 2 mi north of Long Pine in NW¼NW¼ sec. 19, T.30 N., R.20 W.	1.0
Long Pine Creek 6 mi north of Long Pine (gage) in SE¼NE¼ sec. 29, T.31 N., R.20 W.	96
West Bone Creek 4 mi southwest of Ainsworth in NE¼NE¼ sec. 31, T.30 N., R.22 W.	0
West Bone Creek at Ainsworth in SE¼SE¼ sec. 22, T.30 N., R.22 W.	2.0
East Bone Creek at Ainsworth in SE¼NE¼ sec. 35, T.30 N., R.22 W.	0
East Bone Creek at Ainsworth in SW¼SW¼ sec. 23, T.30 N., R.22 W.	.11
Bone Creek 2 mi north of Ainsworth in SW¼SW¼ sec. 12, T.30 N., R.22 W.	.55
Bone Creek tributary 2 mi northwest of Ainsworth in NE¼NE¼ sec. 16, T.30 N., R.22 W.	0
Bone Creek 3 mi northeast of Ainsworth in SW¼NW¼ sec. 7, T.30 N., R.21 W.	7.7
Bone Creek 6 mi northeast of Ainsworth in SW¼SW¼ sec. 34, T.31 N., R.21 W.	14
Bone Creek tributary 3 mi north of Ainsworth in SE¼SE¼ sec. 2, T.30 N., R.22 W.	0
Bone Creek tributary 5 mi northeast of Ainsworth in NW¼SW¼ sec. 31, T.31 N., R.21 W.	0
Sand Draw 3 mi southeast of Johnstown in SW¼SE¼ sec. 22, T.30 N., R.23 W.	0
Sand Draw 3 mi southeast of Johnstown in SW¼NE¼ sec. 22, T.30 N., R.23 W.	.06
Sand Draw 5 mi northeast of Johnstown in SE¼SE¼ sec. 1, T.30 N., R.23 W.	4.1
Sand Draw 6 mi north of Ainsworth in NE¼NE¼ sec. 26, T.31 N., R.22 W.	5.5
Bone Creek 10 mi northeast of Ainsworth in NW¼SE¼ sec. 10, T.31 N., R.21 W.	40
Long Pine Creek 5.5 mi southwest of Riverview (gage) in SE¼NE¼ sec. 5, T.31 N., R.20 W.	146
Long Pine Creek 3 mi southwest of Riverview in NE¼NE¼ sec. 34, T.32 N., R.20 W.	134
Elk Creek 5 mi northwest of Bassett in SW¼SE¼ sec. 17, T.31 N., R.19 W.	0
Laughing Water Creek 10 mi northeast of Bassett in SW¼SE¼ sec. 24, T.32 N., R.19 W.	3.6
Rock Creek 10 mi northeast of Bassett in NE¼SE¼ sec. 29, T.32 N., R.18 W.	5.1
Willow Creek 8 mi northwest of Newport in NE¼NW¼ sec. 3, T.31 N., R.18 W.	0
Willow Creek 9 mi northwest of Newport in SE¼NW¼ sec. 27, T.32 N., R.18 W.	.58
Oak Creek 8 mi north of Newport in NE¼NE¼ sec. 30, T.32 N., R.17 W.	2.5
Oak Creek tributary 8 mi north of Newport in NE¼NW¼ sec. 29, T.32 N., R.17 W.	.58
Ash Creek 8 mi northeast of Newport in NW¼NE¼ sec. 34, T.32 N., R.17 W.	8.3
Ash Creek 12 mi north of Newport in SE¼NE¼ sec. 5, T.32 N., R.17 W.	11
Clay Creek 15 mi north of Stuart in SE¼SE¼ sec. 22, T.33 N., R.16 W.	.23
Beaver Creek 6 mi north of Stuart in SE¼SW¼ sec. 6, T.31 N., R.15 W.	0
Beaver Creek 9 mi north of Stuart in SE¼SE¼ sec. 19, T.32 N., R.15 W.	1.3
Beaver Creek 11 mi north of Stuart in SW¼NW¼ sec. 18, T.32 N., R.15 W.	1.5
Beaver Creek 14 mi north of Stuart in NE¼NW¼ sec. 31, T.33 N., R.15 W.	4.7
Big Sandy Creek 6 mi northeast of Stuart in NE¼NE¼ sec. 26, T.31 N., R.15 W.	0
Big Sandy Creek tributary 6 mi northeast of Stuart in NE¼NW¼ sec. 26, T.31 N., R.15 W.	1.3
Big Sandy Creek 7 mi northeast of Stuart in NE¼NE¼ sec. 10, T.31 N., R.15 W.	7.4
Big Sandy Creek 13 mi northeast of Stuart in NW¼SE¼ sec. 3, T.32 N., R.15 W.	20
Brush Creek 10 mi northeast of Atkinson in NW¼NE¼ sec. 13, T.31 N., R.14 W.	0
Brush Creek 12 mi northeast of Atkinson in NE¼NW¼ sec. 1, T.31 N., R.14 W.	2.0
Brush Creek tributary 11 mi north of Atkinson in NW¼NE¼ sec. 9, T.31 N., R.14 W.	0
Brush Creek tributary 14 mi northeast of Atkinson in SW¼NW¼ sec. 30, T.32 N., R.13 W.	.95
Brush Creek tributary 15 mi north of Atkinson in SE¼SE¼ sec. 17, T.32 N., R.14 W.	.02
Brush Creek 17 mi northeast of Atkinson in SE¼NW¼ sec. 12, T.32 N., R.14 W.	9.0
Brush Creek tributary 17 mi northeast of Atkinson in NW¼NW¼ sec. 17, T.32 N., R.13 W.	.21
Spring Branch 15 mi northeast of Atkinson in SW¼SE¼ sec. 21, T.32 N., R.13 W.	0
Spring Branch 17 mi northeast of Atkinson in NW¼NE¼ sec. 15, T.32 N., R.13 W.	.22
Turkey Creek 17 mi northeast of Atkinson in NW¼NW¼ sec. 24, T.32 N., R.13 W.	.38
Middle Branch Eagle Creek 9 mi northeast of Atkinson in NE¼NE¼ sec. 9, T.30 N., R.13 W.	7.6
North Branch Eagle Creek 9 mi northeast of Atkinson in NE¼SE¼ sec. 29, T.31 N., R.13 W.	.14
Eagle Creek 11 mi northeast of Emmet in SW¼NW¼ sec. 30, T.31 N., R.12 W.	14

Niobrara River Basin--Continued

Location	Observation of zero flow or measured discharge, in cubic feet per second
	October 3-4
East Branch Eagle Creek 5 mi northeast of Emmet in NW¼NW¼ sec. 32, T.30 N., R.12 W.	0
East Branch Eagle Creek 6 mi northeast of Emmet in SE¼SE¼ sec. 19, T.30 N., R.12 W.	.04
East Branch Eagle Creek tributary 6 mi northeast of Emmet in SE¼NE¼ sec. 19, T.30 N., R.12 W.	.06
East Branch Eagle Creek tributary 7 mi northeast of Emmet in NW¼NE¼ sec. 20, T.30 N., R.12 W.	.01
East Branch Eagle Creek 11 mi northeast of Emmet in NW¼NE¼ sec. 31, T.31 N., R.12 W.	6.9
Eagle Creek 15 mi northeast of Emmet in SW¼NW¼ sec. 4, T.31 N., R.12 W.	27
Honey Creek 12 mi northwest of O'Neill in SE¼SW¼ sec. 26, T.31 N., R.12 W.	0
Honey Creek 16 mi northwest of O'Neill in NW¼NW¼ sec. 10, T.31 N., R.12 W.	2.2
Camp Creek 16 mi north of O'Neill in SE¼SW¼ sec. 6, T.31 N., R.11 W.	0
Redbird Creek 4 mi northeast of O'Neill in SW¼SW¼ sec. 4, T.29 N., R.11 W.	0
Redbird Creek 8 mi northeast of O'Neill in SE¼SW¼ sec. 23, T.30 N., R.11 W.	1.7
Redbird Creek tributary 8 mi northeast of O'Neill in SW¼SE¼ sec. 23, T.30 N., R.11 W.	.49
Redbird Creek 11 mi northeast of O'Neill in SE¼SW¼ sec. 1, T.30 N., R.11 W.	5.1
Redbird Creek 14 mi northeast of O'Neill in NE¼NW¼ sec. 25, T.31 N., R.11 W.	9.0
Blackbird Creek 7 mi north of O'Neill in NW¼SW¼ sec. 19, T.30 N., R.11 W.	0
Blackbird Creek 11 mi north of O'Neill in SW¼NW¼ sec. 32, T.31 N., R.11 W.	.67
Blackbird Creek 14 mi north of O'Neill in SW¼SW¼ sec. 16, T.31 N., R.11 W.	2.1
Blackbird Creek 15 mi northeast of O'Neill in SW¼NW¼ sec. 14, T.31 N., R.11 W.	3.3
Redbird Creek 16 mi northeast of O'Neill in NW¼NE¼ sec. 12, T.31 N., R.11 W.	13
Redbird Creek tributary 14 mi northeast of O'Neill in SE¼SE¼ sec. 19, T.31 N., R.10 W.	0
Redbird Creek tributary 16 mi northeast of O'Neill in NE¼NE¼ sec. 12, T.31 N., R.11 W.	.71
Louse Creek 16 mi northeast of O'Neill in SE¼SW¼ sec. 23, T.31 N., R.10 W.	0
Louse Creek 20 mi northeast of O'Neill in SE¼SW¼ sec. 36, T.32 N., R.10 W.	4.7
Squaw Creek 22 mi northeast of O'Neill in SE¼SW¼ sec. 33, T.32 N., R.9 W.	.02
Steele Creek 22 mi northeast of O'Neill in SE¼NW¼ sec. 11, T.31 N., R.9 W.	6.9
South Branch Verdigre Creek 6 mi northwest of Orchard in NW¼NE¼ sec. 23, T.28 N., R.9 W.	0
South Branch Verdigre Creek 6 mi northwest of Orchard in NW¼SW¼ sec. 13, T.28 N., R.9 W.	.06
South Branch Verdigre Creek 6 mi northwest of Orchard in NE¼NE¼ sec. 7, T.28 N., R.8 W.	1.3
Big Springs Creek 2 mi northwest of Orchard in SW¼SW¼ sec. 28, T.28 N., R.8 W.	0
Big Springs Creek tributary 3 mi northwest of Orchard in SW¼SW¼ sec. 21, T.28 N., R.8 W.	.45
Big Springs Creek tributary 3 mi northwest of Orchard in SE¼SW¼ sec. 21, T.28 N., R.8 W.	.09
Big Springs Creek tributary 3 mi northwest of Orchard in SW¼SE¼ sec. 21, T.28 N., R.8 W.	.17
Big Springs Creek 4 mi northeast of Orchard in NE¼NE¼ sec. 22, T.28 N., R.8 W.	6.1
Hathaway Slouth 3 mi northeast of Orchard in NW¼NE¼ sec. 36, T.28 N., R.8 W.	0
South Branch Verdigre Creek 6 mi northeast of Orchard in NE¼NE¼ sec. 12, T.28 N., R.8 W.	16
South Branch Verdigre Creek 7 mi north of Royal in NW¼NE¼ sec. 5, T.28 N., R.7 W.	20
East Branch Verdigre Creek 2 mi east of Royal in SW¼SE¼ sec. 2, T.27 N., R.7 W.	0
East Branch Verdigre Creek tributary 2 mi east of Royal in SE¼SE¼ sec. 2, T.27 N., R.7 W.	Trace
East Branch Verdigre Creek 2 mi northeast of Royal in SW¼SE¼ sec. 35, T.28 N., R.7 W.	9.7
East Branch Verdigre Creek 4 mi north of Royal in SE¼SW¼ sec. 15, T.28 N., R.7 W.	19
Hay Creek 1 mi north of Royal in SW¼SE¼ sec. 33, T.28 N., R.7 W.	0
Hay Creek 2 mi northwest of Royal in SE¼SE¼ sec. 29, T.28 N., R.7 W.	.19
Hay Creek tributary 2 mi northwest of Royal in SW¼SE¼ sec. 29, T.28 N., R.7 W.	.06
Hay Creek 5 mi north of Royal in SE¼NE¼ sec. 16, T.28 N., R.7 W.	2.0
East Branch Verdigre Creek 7 mi north of Royal in NE¼NW¼ sec. 4, T.28 N., R.7 W.	24
Cottonwood Creek 7 mi north of Royal in NW¼NW¼ sec. 3, T.28 N., R.7 W.	0
Verdigre Creek 9 mi north of Royal in SW¼SE¼ sec. 22, T.29 N., R.7 W.	45
Merriman Creek 6 mi northwest of Brunswick in SW¼SE¼ sec. 4, T.28 N., R.6 W.	0
Merriman Creek tributary 7 mi northwest of Brunswick in NE¼SE¼ sec. 4, T.28 N., R.6 W.	0
Merriman Creek 8 mi northwest of Brunswick in NE¼NE¼ sec. 5, T.28 N., R.6 W.	.59
Merriman Creek tributary 8 mi northwest of Brunswick in NW¼SW¼ sec. 33, T.29 N., R.6 W.	.08
Merriman Creek tributary 7 mi northwest of Brunswick in NE¼NE¼ sec. 8, T.28 N., R.6 W.	0
Merriman Creek tributary 8 mi northwest of Brunswick in NW¼NW¼ sec. 5, T.28 N., R.6 W.	.06
Merriman Creek tributary 6 mi northeast of Royal in NE¼NW¼ sec. 18, T.28 N., R.6 W.	.02
Merriman Creek 9 mi southwest of Verdigre in SE¼SW¼ sec. 24, T.29 N., R.7 W.	4.9
Merriman Creek 8 mi southwest of Verdigre in SW¼NW¼ sec. 14, T.29 N., R.7 W.	5.4
Verdigre Creek tributary 8 mi southwest of Verdigre in SE¼NW¼ sec. 10, T.29 N., R.7 W.	.15
Verdigre Creek 5 mi southwest of Verdigre in SE¼NE¼ sec. 35, T.30 N., R.7 W.	49
Middle Branch Verdigre Creek 3 mi northeast of Page in NW¼SW¼ sec. 33, T.29 N., R.9 W.	0
Middle Branch Verdigre Creek 5 mi northeast of Page in NE¼NW¼ sec. 27, T.29 N., R.9 W.	1.2
Middle Branch Verdigre Creek 8 mi northeast of Page in NE¼NE¼ sec. 13, T.29 N., R.9 W.	7.5
Middle Branch Verdigre Creek tributary 8 mi northeast of Page in SE¼SW¼ sec. 20, T.29 N., R.8 W.	0
Middle Branch Verdigre Creek tributary 9 mi northeast of Page in NE¼NE¼ sec. 18, T.29 N., R.8 W.	.46
Middle Branch Verdigre Creek tributary 10 mi northeast of Page in NE¼SE¼ sec. 1, T.29 N., R.9 W.	2.7
Lamb Creek 11 mi northeast of Page in NW¼SW¼ sec. 25, T.30 N., R.9 W.	0
Lamb Creek 11 mi northeast of Page in SW¼SW¼ sec. 32, T.30 N., R.8 W.	1.0
Middle Branch Verdigre Creek 12 mi northeast of Page in SE¼SE¼ sec. 32, T.30 N., R.8 W.	11
Middle Branch Verdigre Creek tributary 9 mi north of Orchard in NE¼SE¼ sec. 22, T.29 N., R.8 W.	0
Middle Branch Verdigre Creek tributary 11 mi north of Orchard in SW¼SE¼ sec. 10, T.29 N., R.8 W.	.11
Middle Branch Verdigre Creek tributary 13 mi north of Orchard in SE¼SW¼ sec. 34, T.30 N., R.8 W.	.51
Middle Branch Verdigre Creek tributary 10 mi southwest of Verdigre in SW¼SE¼ sec. 7, T.29 N., R.7 W.	0
Middle Branch Verdigre Creek tributary 9 mi southwest of Verdigre in SW¼SE¼ sec. 6, T.29 N., R.7 W.	.01

Niobrara River Basin--Continued

Location	Observation of zero flow or measured discharge, in cubic feet per second
	October 3-4
Middle Branch Verdigre Creek tributary 9 mi southwest of Verdigre in NE¼NW¼ sec. 6, T.29 N., R.7 W.	.05
Tributary to Middle Branch Verdigre Cr. trib. 9 mi SW of Verdigre in NE¼NE¼ sec. 1, T.29 N., R.8 W.	.02
Middle Branch Verdigre Creek 7 mi southwest of Verdigre in NW¼SW¼ sec. 28, T.30 N., R.7 W.	13
Verdigre Creek tributary 4 mi southwest of Verdigre in NW¼SE¼ sec. 24, T.30 N., R.7 W.	.01
Verdigre Creek 3 mi southwest of Verdigre in SE¼SW¼ sec. 18, T.30 N., R.4 W.	60
North Branch Verdigre Creek 11 mi northeast of Page in SW¼SW¼ sec. 21, T.30 N., R.9 W.	.64
North Branch Verdigre Creek 12 mi northeast of Page in SE¼SE¼ sec. 15, T.30 N., R.9 W.	8.0
North Branch Verdigre Creek 14 mi west of Verdigre in NE¼SE¼ sec. 1, T.30 N., R.9 W.	15
North Branch Verdigre Creek 5 mi west of Verdigre in SE¼SE¼ sec.4, T.30 N., R.7W.(gage rating disch.)	15
Bazile Creek Basin	
Bazile Creek 1 mi northwest of Brunswick in SW¼SW¼ sec. 35, T.28 N., R.6 W.	0
Bazile Creek 2 mi north of Brunswick in NW¼SW¼ sec. 25, T.28 N., R.6 W.	.59
Bazile Creek 2 mi northeast of Brunswick in NW¼SW¼ sec. 30, T.28 N., R.5 W.	.64
Bazile Creek tributary 2 mi northeast of Brunswick in SW¼SW¼ sec. 30, T.28 N., R.5 W.	0
Bazile Creek tributary 2 mi northeast of Brunswick in SE¼SW¼ sec. 30, T.28 N., R.5 W.	0
Bazile Creek triburary 3 mi northeast of Brunswick in SW¼SW¼ sec. 29, T.28 N., R.5 W.	1.6
Bazile Creek 4 mi northeast of Brunswick in SE¼SW¼ sec. 21, T.28 N., R.5 W.	4.4
Bazile Creek 3 mi south of Creighton in SW¼NW¼ sec. 10, T.28 N., R.5 W.	6.7
Bazile Creek tributary 5 mi east of Brunswick in SW¼SW¼ sec. 35, T.28 N., R.5 W.	0
Bazile Creek tributary 6 mi northeast of Brunswick in NE¼NW¼ sec. 35, T.28 N., R.5 W.	.09
Tributary to Bazile Creek tributary 6 mi NE of Brunswick in NW¼NW¼ sec. 26, T.28 N., R.5 W.	0
Bazile Creek tributary 4 mi southeast of Creighton in SE¼SE¼ sec. 10, T.28 N., R.5 W.	.77
Bazile Creek 2 mi southeast of Creighton in NW¼NE¼ sec. 3, T.28 N., R.5 W.	7.4
Bazile Creek tributary 2 mi southeast of Creighton in NE¼NE¼ sec. 3, T.28 N., R.5 W.	0
Bazile Creek tributary 2 mi southwest of Creighton in NE¼NW¼ sec. 31, T.29 N., R.5 W.	0
Bazile Creek tributary 2 mi west of Creighton in SW¼SE¼ sec. 19, T.29 N., R.5 W.	.26
Bazile Creek tributary at Creighton in SE¼NW¼ sec. 21, T.29 N., R.5 W.	.71
Bazile Creek at Creighton in NE¼NW¼ sec. 21, T.29 N., R.5 W.	11
Spring Creek 2 mi southeast of Bazile Mills in SW¼NW¼ sec. 14, T.29 N., R.5 W.	0
Spring Creek at Bazile Mills in NE¼NE¼ sec. 9, T.29 N., R.5 W.	2.2
Bazile Creek 1 mi northeast of Bazile Mills in NE¼SW¼ sec. 34, T.30 N., R.5 W.	14
Little Bazile Creek tributary 7 mi east of Bazile Mills in NE¼NE¼ sec. 10, T.29 N., R.4 W.	0
Little Bazile Creek tributary 5 mi southeast of Bazile Mills in NW¼NW¼ sec. 17, T.29 N., R.4 W.	0
Little Bazile Creek tributary 4 mi east of Bazile Mills in NE¼NW¼ sec. 7, T.29 N., R.4 W.	0

PLATTE RIVER BASIN

Discharge measurements and observations of zero flow were made on tributaries to the Loup River in Greeley, Howard, Garfield, Wheeler, Boone, Nance, and Platte Counties, Nebr., and on tributaries to the Platte River in Madison, Platte, and Colfax Counties, Nebr., in October 1979. Conditions were generally dry preceding the measurements, but light rain showers occurred on October 22, ranging from 0.13 in. at Genoa to 0.37 in. at Schuyler. Locations are listed in downstream order.

Loup River basin

Location	Observation of zero flow or measured discharge, in cubic feet per second
	October 22-23, 1979
Spring Creek 5 mi southeast of Greeley in SW¼NW¼ sec. 26, T.18 N., R.10 W.	0
East Branch Spring Creek 5 mi southeast of Greeley in NW¼NW¼ sec. 26, T.18 N., R.10 W.	0
Spring Creek 7 mi southeast of Greeley in NW¼SW¼ sec. 36, T.18 N., R.10 W.	0
Spring Creek 3 mi north of Wolbach in SW¼NW¼ sec. 18, T.17 N., R.9 W.	.10
West Branch Spring Creek 3 mi northwest of Wolbach in SW¼NE¼ sec. 23, T.17 N., R.10 W.	0
Spring Creek at Cushing in NE¼SW¼ sec. 8, T.15 N., R.9 W.	3.9
Rock Creek 4 mi northeast of Cushing in NE¼NW¼ sec. 26, T.16 N., R.9 W.	0
Rock Creek 5 mi east of Cushing in NW¼SE¼ sec. 7, T.15 N., R.8 W.	.02
Cottonwood Creek 7 mi northeast of Cushing in NE¼NE¼ sec. 20, T.16 N., R.8 W.	0
Cottonwood Creek 6 mi northeast of Cushing in NW¼SW¼ sec. 28, T.16 N., R.8 W.	Trace
Cottonwood Creek 7 mi east of Cushing in NW¼NW¼ sec. 10, T.15 N., R.8 W.	.07
Cottonwood Creek 7 mi east of Cushing in SE¼SE¼ sec. 9, T.15 N., R.8 W.	.02
Horse Creek 9 mi southwest of Fullerton in NW¼NE¼ sec. 32, T.16 N., R.7 W.	0
Big Cedar Creek 29 mi northwest of Erickson in NE¼NE¼ sec. 8, T.24 N., R.15 W.	0
Big Cedar Creek 26 mi northwest of Erickson in NW¼NW¼ sec. 23, T.24 N., R.15 W.	Trace
Big Cedar Creek 25 mi northwest of Erickson in SE¼NE¼ sec. 23, T.24 N., R.15 W.	Trace
Big Cedar Creek 22 mi northwest of Erickson in NE¼NE¼ sec. 28, T.24 N., R.14 W.	.84
Little Cedar Creek 26 mi northwest of Erickson in SE¼NE¼ sec. 29, T.24 N., R.15 W.	.22
Little Cedar Creek 17 mi northwest of Erickson in NW¼NW¼ sec. 13, T.23 N., R.14 W.	.74
Cedar Creek 16 mi northwest of Erickson in SE¼NE¼ sec. 13, T.23 N., R.14 W.	2.7
Cedar Creek 12 mi northwest of Erickson in SE¼SE¼ sec. 32, T.23 N., R.13 W.	25
Cedar Creek 7 mi northwest of Erickson in NW¼SW¼ sec. 19, T.22 N., R.12 W.	49
Dry Cedar Creek 7 mi northwest of Erickson in SE¼NE¼ sec. 9, T.21 N., R.13 W.	0
Dry Cedar Creek 5 mi west of Erickson in SE¼NW¼ sec. 13, T.21 N., R.13 W.	0
Cedar River 2 mi southeast of Erickson in SE¼SE¼ sec. 25, T.21 N., R.12 W.	107
Cedar River 8 mi southeast of Erickson in SW¼NE¼ sec. 2, T.20 N., R.11 W.	116
Clear Creek 7 mi east of Erickson in SW¼SW¼ sec. 12, T.21 N., R.11 W.	0
Clear Creek 8 mi southeast of Erickson in NE¼NE¼ sec. 36, T.21 N., R.11 W.	.02
Cedar River 5 mi northwest of Spalding (gage) in NE¼NE¼ sec. 15, T.20 N., R.10 W.	130
Cedar River tributary 5 mi northwest of Spalding in SW¼NW¼ sec. 11, T.20 N., R.10 W.	.01
Cedar River tributary 5 mi northwest of Spalding in SE¼NW¼ sec. 11, T.20 N., R.10 W.	0
Cedar River tributary 5 mi northwest of Spalding in SW¼SW¼ sec. 11, T.20 N., R.10 W.	0
Cedar River tributary 2 mi north of Spalding in NE¼SE¼ sec. 8, T.20 N., R.9 W.	0
Cedar River tributary 1 mi west of Spalding in NW¼NW¼ sec. 20, T.20 N., R.9 W.	.03
Cedar River 1 mi south of Spalding in NW¼NW¼ sec. 34, T.20 N., R.9 W.	170
Freeman Creek 4 mi south of Spalding in NE¼NE¼ sec. 9, T.19 N., R.9 W.	0
Freeman Creek tributary 5 mi south of Spalding in SW¼NW¼ sec. 15, T.19 N., R.9 W.	0
Freeman Creek 5 mi southeast of Spalding in NE¼NW¼ sec. 12, T.19 N., R.9 W.	0
Mud Creek 4 mi southeast of Spalding in SW¼SE¼ sec. 36, T.20 N., R.9 W.	0
Mud Creek 5 mi southeast of Spalding in NE¼SE¼ sec. 1, T.19 N., R.9 W.	0
Cedar River at Primrose in NE¼NE¼ sec. 17, T.19 N., R.8 W.	188
Cedar River 2 mi southeast of Primrose in SW¼SW¼ sec. 24, T.19 N., R.8 W.	190
Cedar River tributary 2 mi north of Cedar Rapids in NE¼SE¼ sec. 30, T.19 N., R.7 W.	0
Cedar River at Cedar Rapids in SE¼SE¼ sec. 5, T.18 N., R.7 W.	188
Cedar River at Belgrade in SE¼NW¼ sec. 2, T.17 N., R.7 W.	178
Cedar River 3 mi south of Belgrade in SW¼SW¼ sec. 19, T.17 N., R.6 W.	201
Ash Creek 3 mi south of Belgrade in SW¼NE¼ sec. 19, T.17 N., R.6 W.	0
North Branch Timber Creek 9 mi northwest of Belgrade in SE¼SE¼ sec. 21, T.18 N., R.8 W.	0
North Branch Timber Creek 8 mi northwest of Belgrade in SE¼SE¼ sec. 27, T.18 N., R.8 W.	.01
South Branch Timber Creek 11 mi west of Belgrade in NW¼SE¼ sec. 6, T.17 N., R.8 W.	0
South Branch Timber Creek 10 mi west of Belgrade in SE¼NE¼ sec. 6, T.17 N., R.8 W.	.03
South Branch Timber Creek 9 mi west of Belgrade in SW¼SE¼ sec. 9, T.17 N., R.8 W.	.01
Timber Creek 5 mi southwest of Belgrade in NW¼SE¼ sec. 18, T.17 N., R.7 W.	.82
Timber Creek 4 mi south of Belgrade in NW¼SE¼ sec. 26, T.17 N., R.7 W.	1.9
Cedar River 3 mi northwest of Fullerton (gage) in NE¼NE¼ sec. 4, T.16 N., R.6 W.	192
Cedar River at Fullerton in SW¼NW¼ sec. 12, T.16 N., R.6 W.	199
Plum Creek 6 mi northeast of Belgrade in SW¼SW¼ sec. 10, T.18 N., R.6 W.	0
Plum Creek 5 mi northeast of Belgrade in NE¼SE¼ sec. 22, T.18 N., R.6 W.	0
Plum Creek 5 mi east of Belgrade in SE¼SW¼ sec. 36, T.18 N., R.6 W.	0
Plum Creek 7 mi southeast of Belgrade in SW¼SW¼ sec. 7, T.17 N., R.5 W.	.18
Plum Creek 4 mi northeast of Fullerton in SE¼SW¼ sec. 20, T.17 N., R.5 W.	.48
Council Creek 7 mi northeast of Fullerton in SW¼NW¼ sec. 36, T.17 N., R.5 W.	0

PLATTE RIVER BASIN

Loup River basin--Continued

Location	Observation of zero flow or measured discharge, in cubic feet per second October 22-23, 1979
Looking Glass Creek 6 mi southwest of Lindsay in SW¼SW¼ sec. 13, T.19 N., R.4 W.	0
Looking Glass Creek tributary 7 mi southwest of Lindsay in SE¼SW¼ sec. 14, T.19 N., R.4 W.	0
Looking Glass Creek 8 mi south of Lindsay in SE¼SE¼ sec. 25, T.19 N., R.4 W.	0
Looking Glass Creek 5 mi northeast of Genoa in SW¼SE¼ sec. 18, T.18 N., R.3 W.	0
Looking Glass Creek 4 mi northeast of Genoa in SE¼NW¼ sec. 30, T.18 N., R.3 W.	.57
Looking Glass Creek 3 mi northeast of Genoa in NW¼SE¼ sec. 5, T.17 N., R.3 W.	6.4
Looking Glass Creek 3 mi east of Genoa in NW¼NE¼ sec. 17, T.17 N., R.3 W.	9.1
Loup River tributary 3 mi north of Monroe in SW¼NW¼ sec. 30, T.18 N., R.2 W.	0
Loup River tributary 1 mi east of Monroe in NE¼SE¼ sec. 6, T.17 N., R.2 W.	0
Loup River tributary 3 mi northeast of Monroe in SE¼SE¼ sec. 20, T.18 N., R.2 W.	0

Platte River tributaries

Location	Observation of zero flow or measured discharge, in cubic feet per second October 22-23, 1979
Lost Creek 4 mi northwest of Columbus in SW¼SE¼ sec. 4, T.17 N., R.1 W.	0
Lost Creek 1 mi north of Columbus in SW¼NW¼ sec. 7, T.17 N., R.1 E.	.31
Lost Creek at Columbus in SW¼SW¼ sec. 16, T.17 N., R.1 E.	0
Lost Creek 2 mi southeast of Columbus in NW¼SW¼ sec. 27, T.17 N., R.1 E.	Trace
Lost Creek 4 mi southeast of Columbus in NW¼SW¼ sec. 25, T.17 N., R.1 E.	11
Lost Creek 1 mi south of Richland in SW¼SW¼ sec. 21, T.17 N., R.2 E.	9.7
Lost Creek 5 mi southeast of Richland in NW¼SW¼ sec. 31, T.17 N., R.3 E.	8.4
Lost Creek at Schuyler in NE¼NE¼ sec. 22, T.17 N., R.3 E.	9.8
Lost Creek 2 mi east of Schuyler in SW¼SE¼ sec. 18, T.17 N., R.4 E.	11
Shell Creek at Newman Grove in SE¼NE¼ sec. 33, T.21 N., R.4 W.	0
Shell Creek at Lindsay in NW¼NE¼ sec. 19, T.20 N., R.3 W.	0
Shell Creek tributary 1 mi west of Lindsay in SW¼NW¼ sec. 19, T.20 N., R.3 W.	0
Shell Creek 3 mi southeast of Lindsay in SW¼NW¼ sec. 34, T.20 N., R.3 W.	.05
Shell Creek 7 mi southeast of Lindsay in NW¼NE¼ sec. 23, T.19 N., R.3 W.	.51
Shell Creek 5 mi northeast of Platte Center in NW¼SW¼ sec. 32, T.19 N., R.2 W.	2.4
Shell Creek 3 mi west of Platte Center in SW¼SW¼ sec. 10, T.18 N., R.2 W.	2.3
Shell Creek tributary 2 mi south of Tarnov in NW¼NW¼ sec. 36, T.19 N., R.2 W.	0
Shell Creek tributary at Platte Center in NW¼NE¼ sec. 13, T.18 N., R.2 W.	.10
Shell Creek 2 mi southeast of Platte Center in NE¼NE¼ sec. 30, T.18 N., R.1 W.	3.0
Shell Creek 6 mi north of Columbus in NE¼SE¼ sec. 19, T.18 N., R.1 E.	8.8
Loseke Creek 5 mi east of Tarnov in NE¼SE¼ sec. 15, T.19 N., R.1 W.	0
Loseke Creek 6 mi east of Tarnov in NE¼SE¼ sec. 14, T.19 N., R.1 W.	0
Loseke Creek 8 mi east of Tarnov in SE¼SE¼ sec. 7, T.19 N., R.1 E.	.22
Loseke Creek tributary 8 mi east of Tarnov in NE¼SE¼ sec. 18, T.19 N., R.1 E.	0
Loseke Creek tributary 5 mi southeast of Creston in NE¼NE¼ sec. 9, T.19 N., R.1 E.	.11
Loseke Creek tributary 4 mi south of Leigh in SE¼SE¼ sec. 5, T.19 N., R.2 E.	0
Loseke Creek tributary 5 mi south of Leigh in SE¼NE¼ sec. 12, T.19 N., R.1 E.	.06
Tributary to Loseke Creek tributary 5 mi southwest of Leigh in SW¼SE¼ sec. 1, T.19 N., R.1 E.	.01
Loseke Creek tributary 6 mi southwest of Leigh in NE¼SE¼ sec. 10, T.19 N., R. 1 E.	.10
Loseke Creek tributary 7 mi southwest of Leigh in SE¼SE¼ sec. 14, T.19 N., R.1 .	.01
Loseke Creek tributary 7 mi southwest of Leigh in NE¼NW¼ sec. 23, T.19 N., R.1 F.	.02
Loseke Creek tributary 9 mi north of Columbus in NW¼NE¼ sec. 9, T.18 N., R.1 E.	0
Loseke Creek tributary 10 mi northeast of Columbus in SW¼NW¼ sec. 2, T.18 N., R.1 E.	.20
Loseke Creek 7 mi northwest of Richland in SW¼SE¼ sec. 13, T.18 N., R.1 E.	.44
Shell Creek tributary 6 mi north of Richland in SW¼SE¼ sec. 17, T.18 N., R.2 E.	0
Shell Creek 6 mi northwest of Schuyler in SE¼SE¼ sec. 23, T.18 N., R.2 E.	7.4
Shell Creek 3 mi north of Schuyler in SE¼SW¼ sec. 27, T.18 N., R.3 E.	7.8
Shell Creek 1 mi northeast of Schuyler in NW¼NW¼ sec. 12, T.17 N., R.3 E.	9.0
Shell Creek 4 mi east of Schuyler in SE¼SE¼ sec. 8, T.17 N., R.4 E.	8.3
Rawhide Creek 4 mi northwest of Rogers in SE¼SE¼ sec. 28, T.18 N., R.4 E.	0
Rawhide Creek 3 mi north of Rogers in SE¼NE¼ sec. 25, T.18 N., R.4 E.	0

PLATTE RIVER BASIN

Elkhorn River basin

Discharge measurements and observations of zero flow were made on the Elkhorn River and tributaries in Rock, Holt, Antelope, Wheeler, Pierce, Madison, Wayne, Stanton, Platte, Cuming, and Dodge Counties, Nebr., on September 28 and October 1-2, 1979. Conditions were good, as no rain fell in the week preceding the measurements and only some scattered trace amounts fell in the area on October 1-2. Locations are listed in downstream order.

Location	Observation of zero flow or measured discharge, in cubic feet per second
	September 28, October 1-2, 1979
Elkhorn River 8 mi southwest of Newport in SW¼SW¼ sec. 7, T.29 N., R.17 W.	0
Elkhorn River 7 mi south of Newport in SW¼SW¼ sec. 5, T.29 N., R.17 W.	.20
Elkhorn River 4 mi southeast of Newport in NW¼SW¼ sec. 24, T.30 N., R.17 W.	2.3
Dry Creek 6 mi southeast of Newport in NE¼NE¼ sec. 35, T.30 N., R.17 W.	0
Elkhorn River 3 mi west of Stuart in NE¼NE¼ sec. 8, T.30 N., R.16 W.	.95
North Branch Elkhorn River 3 mi northeast of Bassett in NE¼NE¼ sec. 1, T.30 N., R.19 W.	0
North Branch Elkhorn River at Newport in SE¼SE¼ sec. 32, T.31 N., R.17 W.	.19
Elkhorn River at Stuart in SE¼SE¼ sec. 2, T.30 N., R.16 W.	4.8
Keegan Creek 4 mi southeast of Stuart in NE¼SE¼ sec. 20, T.30 N., R.15 W.	0
Elkhorn River 5 mi southeast of Stuart in NE¼SE¼ sec. 21, T.30 N., R.15 W.	11
Elkhorn River 1 mi south of Atkinson in SW¼NW¼ sec. 4, T.29 N., R.14 W.	14
Dry Creek 2 mi south of Atkinson in NW¼NW¼ sec. 9, T.29 N., R.14 W.	0
Elkhorn River 4 mi west of Emmet in NW¼NW¼ sec. 19, T.29 N., R.13 W.	16
Holt Creek 14 mi southwest of Atkinson in SE¼NE¼ sec. 36, T.28 N., R.16 W.	0
Holt Creek tributary 17 mi southwest of Atkinson in SW¼SW¼ sec. 18, T.27 N., R.15 W.	0
Holt Creek 11 mi south of Atkinson in SW¼NW¼ sec. 28, T.28 N., R.14 W.	3.4
Holt Creek 11 mi southeast of Atkinson in SW¼SW¼ sec. 23, T.28 N., R.14 W.	3.8
Holt Creek 5 mi southwest of Emmet (gage) in SE¼SW¼ sec. 5, T.28 N., R.13 W.	6.1
Holt Creek 2 mi southwest of Emmet in NW¼NE¼ sec. 28, T.29 N., R.13 W.	6.9
Elkhorn River at Emmet (gage) in NE¼SE¼ sec. 23, T.29 N., R.13 W.	18
Elkhorn River at O'Neill in SE¼NW¼ sec. 31, T.29 N., R.11 W.	19
Dry Creek 2 mi west of Amelia in NE¼SE¼ sec. 8, T.26 N., R.14 W.	0
Dry Creek tributary 4 mi northwest of Amelia in NE¼NE¼ sec. 32, T.27 N., R.14 W.	0
Dry Creek 3 mi north of Amelia in SE¼NE¼ sec. 34, T.27 N., R.14 W.	0
Dry Creek 8 mi southwest of O'Neill in NE¼SE¼ sec. 34, T.28 N., R.12 W.	5.4
Dry Creek 5 mi south of O'Neill in SE¼SW¼ sec. 19, T.28 N., R.11 W.	5.7
Elkhorn River 3 mi southeast of O'Neill in NW¼NE¼ sec. 4, T.28 N., R.11 W.	22
Elkhorn River 1 mi east of Inman in SW¼SE¼ sec. 20, T.28 N., R.10 W.	23
Elkhorn River 5 mi south of Page in SE¼SE¼ sec. 2, T.27 N., R.10 W.	24
Elkhorn River tributary 5 mi south of Page in SW¼SW¼ sec. 6, T.27 N., R.9 W.	.02
Elkhorn River at Ewing (gage) in NW¼SW¼ sec. 35, T.27 N., R.9 W.	30
South Fork Elkhorn River 6 mi southwest of Amelia in NW¼NW¼ sec. 31, T.26 N., R.14 W.	0
South Fork Elkhorn River 5 mi southwest of Amelia in SW¼NE¼ sec. 30, T.26 N., R.14 W.	0
South Fork Elkhorn River 3 mi southwest of Amelia in SW¼NE¼ sec. 20, T.26 N., R.14 W.	0
South Fork Elkhorn River 2 mi southeast of Amelia in SW¼SW¼ sec. 19, T.26 N., R.13 W.	0
South Fork Elkhorn River 3 mi northwest of Chambers in SW¼NW¼ sec. 14, T.26 N., R.13 W.	1.0
South Fork Elkhorn River trib. 5 mi west of Chambers in SW¼SW¼ sec. 21, T.26 N., R.13 W.	0
South Fork Elkhorn River trib. 3 mi northwest of Chambers in SW¼SW¼ sec. 14, T.26 N., R.13 W.	.39
South Fork Elkhorn River 3 mi north of Chambers in NW¼NW¼ sec. 8, T.26 N., R.12 W.	2.0
South Fork Elkhorn River 6 mi northeast of Chambers in NW¼NW¼ sec. 6, T.26 N., R.11 W.	1.3
South Fork Elkhorn River trib. 2 mi south of Chambers in SW¼SW¼ sec. 32, T.26 N., R.12 W.	0
South Fork Elkhorn River trib. 6 mi southeast of Chambers in NW¼SW¼ sec. 6, T.25 N., R.11 W.	0
South Fork Elkhorn River trib. 8 mi east of Chambers in NW¼NW¼ sec. 27, T.26 N., R.11 W.	0
South Fork Elkhorn River trib. 9 mi east of Chambers in SE¼SW¼ sec. 15, T.26 N., R.11 W.	0
South Fork Elkhorn River 8 mi southwest of Ewing in NW¼NW¼ sec. 16, T.26 N., R.10 W.	17
South Fork Elkhorn River 3 mi southwest of Ewing (gage) in SE¼NE¼ sec. 7, T.26 N., R.9 W.	31
South Fork Elkhorn River at Ewing in SW¼SW¼ sec. 2, T.26 N., R.9 W.	32
Cache Creek 7 mi south of Chambers in SW¼NW¼ sec. 32, T.25 N., R.12 W.	0
Cache Creek 7 mi southeast of Chambers in NW¼NW¼ sec. 34, T.25 N., R.12 W.	0
Cache Creek Trib. 9 mi southeast of Chambers in SE¼SW¼ sec. 36, T.25 N., R.12 W.	0
Cache Creek 9 mi southeast of Chambers in SW¼NW¼ sec. 31, T.25 N., R.11 W.	0
Cache Creek 9 mi southeast of Chambers in SE¼SW¼ sec. 20, T.25 N., R.11 W.	.27
Cache Creek 9 mi southeast of Chambers in SW¼SW¼ sec. 15, T.25 N., R.11 W.	.73
Cache Creek 10 mi southwest of Ewing in SE¼SE¼ sec. 32, T.26 N., R.10 W.	.60
Cache Creek 4 mi southwest of Ewing in SE¼NE¼ sec. 19, T.26 N., R.9 W.	2.6
Cache Creek 3 mi southeast of Ewing in SW¼NE¼ sec. 13, T.26 N., R.9 W.	4.6
Elkhorn River 4 mi northwest of Clearwater in SE¼SE¼ sec. 21, T.26 N., R.8 W.	69
Clearwater Creek 19 mi southwest of Clearwater in SW¼SW¼ sec. 6, T.24 N., R.10 W.	0
Clearwater Creek 15 mi southwest of Clearwater in SW¼SW¼ sec. 11, T.24 N., R.10 W.	0
Clearwater Creek 11 mi southwest of Clearwater in SW¼SW¼ sec. 33, T.25 N., R.9 W.	3.8
Clearwater Creek 7 mi southwest of Clearwater in NW¼SW¼ sec. 30, T.25 N., R.8 W.	12
Clearwater Creek 2 mi southwest of Clearwater (gage) in SW¼NW¼ sec. 13, T.25 N., R.8 W.	18
Hackberry Creek 2 mi northeast of Clearwater in NE¼NE¼ sec. 32, T.26 N., R.7 W.	0
Hackberry Creek 2 mi northeast of Clearwater in NE¼SW¼ sec. 32, T.26 N., R.7 W.	0
Elkhorn River 1 mi east of Clearwater in SE¼NW¼ sec. 5, T.25 N., R.7 W.	94

PLATTE RIVER BASIN--Continued

Elkhorn River basin--Continued

Location	Observation of zero flow or measured discharge, in cubic feet per second September 28, October 1-2, 1979
Antelope Creek 4 mi southwest of Neligh in SW¼SW¼ sec. 23, T.25 N., R.7 W.	0
Antelope Creek 3 mi southwest of Neligh in NW¼SW¼ sec. 24, T.25 N., R.7 W.	.16
Hall Creek 1 mi northwest of Neligh in NE¼SE¼ sec. 18, T.25 N., R.6 W.	0
Elkhorn River at Neligh in SE¼NE¼ sec. 20, T.25 N., R.6 W.	90
Belmer Creek 1 mi east of Neligh in SW¼SW¼ sec. 15, T.25 N., R.6 W.	0
Belmer Creek at Neligh in NW¼SW¼ sec. 21, T.25 N., R.6 W.	.11
Cedar Creek 4 mi southeast of Elgin in SW¼SE¼ sec. 20, T.23 N., R.6 W.	0
Cedar Creek 5 mi east of Elgin in NW¼NW¼ sec. 11, T.23 N., R.6 W.	.73
West Cedar Creek at Elgin in NE¼NW¼ sec. 11, T.23 N., R.7 W.	0
West Cedar Creek 3 mi northeast of Elgin in SW¼NW¼ sec. 29, T.24 N., R.6 W.	0
West Cedar Creek 5 mi east of Elgin in SW¼SE¼ sec. 3, T.23 N., R.6 W.	2.8
Cedar Creek 3 mi southwest of Oakdale in SW¼SE¼ sec. 22, T.24 N., R.6 W.	8.0
Cedar Creek at Oakdale in NW¼NW¼ sec. 12, T.24 N., R.6 W.	11
Elkhorn River 2 mi east of Oakdale in SE¼NE¼ sec. 7, T.24 N., R.5 W.	121
Elm Creek 2 mi east of Oakdale in NW¼SW¼ sec. 8, T.24 N., R.5 W.	0
Trueblood Creek 4 mi northeast of Oakdale in NW¼NE¼ sec. 4, T.24 N., R.5 W.	.16
Saint Clair Creek 5 mi southeast of Oakdale in SW¼SE¼ sec. 32, T.24 N., R.5 W.	0
Saint Clair Creek 3 mi southeast of Oakdale in NW¼SW¼ sec. 9, T.24 N., R.5 W.	0
Saint Clair Creek 3 mi east of Oakdale in SE¼SW¼ sec. 16, T.24 N., R.5 W.	.02
Ives Creek 5 mi southwest of Tildon in SE¼SW¼ sec. 3, T.23 N., R.5 W.	0
Ives Creek 3 mi southwest of Tildon in NE¼NW¼ sec. 27, T.24 N., R.5 W.	.05
Ives Creek 3 mi northwest of Tildon in NW¼NE¼ sec. 15, T.24 N., R.5 W.	.09
Giles Creek 4 mi south of Tildon in NW¼NE¼ sec. 12, T.23 N., R.5 W.	0
Giles Creek 3 mi south of Tildon in SW¼SE¼ sec. 36, T.24 N., R.5 W.	Ponded
Giles Creek 2 mi south of Tildon in SW¼SE¼ sec. 25, T.24 N., R.5 W.	Ponded
Giles Creek at Tildon in NE¼SE¼ sec. 13, T.24 N., R.5 W.	.96
Elkhorn River 1 mi north of Tildon in NE¼SE¼ sec. 12, T.24 N., R.5 W.	110
Al Hopkins Creek 4 mi north of Tildon in SE¼SE¼ sec. 26, T.25 N., R.5 W.	0
Al Hopkins Creek 3 mi north of Tildon in NE¼SE¼ sec. 36, T.25 N., R.5 W.	.14
Al Hopkins Creek 2 mi north of Tildon in SE¼SE¼ sec. 1, T.24 N., R.5 W.	.26
Dry Creek 4 mi southwest of Meadow Grove in SE¼SW¼ sec. 4, T.23 N., R.4 W.	0
Dry Creek 3 mi southwest of Meadow Grove in SW¼SW¼ sec. 28, T.24 N., R.4 W.	.02
Dry Creek 2 mi west of Meadow Grove in NW¼SE¼ sec. 21, T.24 N., R.4 W.	.35
Elkhorn River 1 mi north of Meadow Grove in SE¼SE¼ sec. 14, T.24 N., R.4 W.	121
Buffalo Creek 4 mi southwest of Meadow Grove in NE¼NE¼ sec. 15, T.23 N., R.4 W.	0
Buffalo Creek at Meadow Grove in SW¼SW¼ sec. 24, T.24 N., R.4 W.	2.2
Deer Creek 4 mi southeast of Meadow Grove in SW¼SW¼ sec. 7, T.23 N., R.3 W.	trace
Deer Creek 2 mi east of Meadow Grove in NE¼NE¼ sec. 30, T.24 N., R.3 W.	1.7
Elkhorn River 2 mi north of Battle Creek in NE¼SW¼ sec. 30, T.24 N., R.2 W.	148
Battle Creek 5 mi southwest of Battle Creek in NE¼NE¼ sec. 35, T.23 N., R.3 W.	0
Battle Creek tributary 5 mi southwest of Battle Creek in SW¼NW¼ sec. 26, T.23 N., R.3 W.	0
Battle Creek 2 mi southwest of Battle Creek in SW¼SW¼ sec. 12, T.23 N., R.3 W.	3.8
Battle Creek 1 mi north of Battle Creek in SW¼NW¼ sec. 31, T.24 N., R.2 W.	9.8
Elkhorn River tributary 3 mi west of Battle Creek in NW¼SW¼ sec. 34, T.24 N., R.2 W.	1.0
Elkhorn River tributary 5 mi southwest of Norfolk in NW¼NE¼ sec. 24, T.23 N., R.2 W.	.14
Elkhorn River tributary 3 mi southwest of Norfolk in NE¼SW¼ sec. 6, T.23 N., R.1 W.	.23
Elkhorn River tributary 5 mi southwest of Norfolk in NE¼NE¼ sec. 29, T.23 N., R.1 W.	.04
Elkhorn River tributary 3 mi southwest of Norfolk in SE¼SW¼ sec. 8, T.23 N., R.1 W.	.28
Elkhorn River tributary 2 mi southwest of Norfolk in SE¼NW¼ sec. 5, T.23 N., R.1 W.	.13
Elkhorn River at Norfolk (gage) in SW¼SW¼ sec. 34, T.24 N., R.1 W.	153
Elkhorn River 3 mi southeast of Norfolk in NW¼SW¼ sec. 6, T.23 N., R.1 E.	157

North Fork Elkhorn River basin

Location	Observation of zero flow or measured discharge, in cubic feet per second September 28, October 1-2, 1979
East Branch North Fork Elkhorn River at Osmond in NW¼SE¼ sec. 31, T.28 N., R.2 W.	0
East Branch North Fork Elkhorn River 1 mi southwest of Osmond in SW¼SW¼ sec. 36, T.28 N., R.3 W.	.57
West Branch North Fork Elkhorn River 2 mi northwest of Osmond in SE¼SW¼ sec. 26, T.28 N., R.3 W.	0
West Branch North Fork Elkhorn River 2 mi southwest of Osmond in SE¼SW¼ sec. 35, T.28 N., R.3 W.	.03
Breslau Creek 4 mi west of Osmond in NE¼NW¼ sec. 4, T.27 N., R.3 W.	0
North Fork Elkhorn River 4 mi south of Osmond in NE¼SE¼ sec. 24, T.27 N., R.3 W.	3.6
North Fork Elkhorn River 4 mi northwest of Pierce in SW¼SE¼ sec. 5, T.26 N., R.2 W.	7.5
Dry Creek 1 mi southeast of Plainview in NE¼NW¼ sec. 10, T.27 N., R.4 W.	0
Dry Creek tributary 4 mi southwest of Plainview in SW¼NW¼ sec. 29, T.27 N., R.4 W.	0
Dry Creek tributary 3 mi southeast of Plainview in NE¼NE¼ sec. 22, T.27 N., R.4 W.	.02
Dry Creek tributary 3 mi southeast of Plainview in SW¼NW¼ sec. 14, T.27 N., R.4 W.	0
Dry Creek 3 mi northwest of Foster in SW¼SW¼ sec. 18, T.27 N., R.3 W.	.14
Dry Creek 1 mi northwest of Foster in NW¼SW¼ sec. 28, T.27 N., R.3 W.	2.5
Dry Creek 4 mi southeast of Foster in SE¼NE¼ sec. 12, T.26 N., R.3 W.	5.6
Yankton Slough 3 mi northeast of Pierce in NE¼NW¼ sec. 13, T.26 N., R.2 W.	0
Yankton Slough tributary 3 mi northeast of Pierce in NE¼NE¼ sec. 13, T.26 N., R.2 W.	0
Willow Creek at Pierce in SW¼SW¼ sec. 26, T.26 N., R.2 W.	7.4

(See "Water Resources Data for Nebraska, Water Year 1976" for low-flow information on Willow Creek.)

PLATTE RIVER BASIN--Continued

Elkhorn River basin--Continued

Location	Observation of zero flow or measured discharge, in cubic feet per second September 28, October 1-2, 1979
North Fork Elkhorn River tributary 2 mi east of Pierce in NE¼NE¼ sec. 36, T.26 N., R.2 W.	0
North Fork Elkhorn River 3 mi southeast of Pierce (gage) in SW¼SW¼ sec. 31, T.26 N., R.1 W.	24
North Fork Elkhorn River 3 mi northwest of Hadar in NW¼SW¼ sec. 17, T.25 N., R.1 W.	30
North Fork Elkhorn River tributary 2 mi northwest of Hadar in NE¼NW¼ sec. 19, T.25 N., R.1 W.	0
Hadar Creek 2 mi southwest of Hadar in SE¼SE¼ sec. 36, T.25 N., R.2 W.	0
Hadar Creek at Hadar in SE¼SW¼ sec. 29, T.25 N., R.1 W.	.04
North Fork Elkhorn River 2 mi southeast of Hadar in SE¼NW¼ sec. 4, T.24 N., R.1 W.	49
Spring Creek 1 mi northeast of Hoskins in SW¼SW¼ sec. 23, T.25 N., R.1 E.	0
Spring Creek 1 mi southwest of Hoskins in SE¼SE¼ sec. 32, T.25 N., R.1 E.	.24
Spring Creek 5 mi southwest of Hoskins in SE¼SW¼ sec. 1, T.24 N., R.1 W.	.22
North Fork Elkhorn River at Norfolk in SE¼SE¼ sec. 26, T.24 N., R.1 W.	51
Elkhorn River tributary 8 mi southwest of Stanton in SW¼NW¼ sec. 6, T.22 N., R.1 E.	0
Elkhorn River tributary 7 mi southwest of Stanton in SW¼SW¼ sec. 32, T.23 N., R.1 E.	Ponded
Elkhorn River tributary 6 mi west of Stanton in SW¼NE¼ sec. 29, T.23 N., R.1 E.	.05
Pleasant Run 1 mi west of Stanton in NE¼NE¼ sec. 25, T.23 N., R.1 E.	0
Union Creek 7 mi southwest of Madison in NE¼NW¼ sec. 29, T.21 N., R.2 W.	0
Union Creek 7 mi southwest of Madison in NW¼NW¼ sec. 33, T.21 N., R.2 W.	.02
Union Creek tributary 9 mi southwest of Madison in NE¼SW¼ sec. 8, T.20 N., R.2 W.	0
Union Creek tributary 8 mi southwest of Madison in SW¼SW¼ sec. 33, T.21 N., R.2 W.	.01
Union Creek 4 mi southwest of Madison in SW¼SE¼ sec. 24, T.21 N., R.2 W.	.33
Pork plant runoff 3 mi southwest of Madison in SW¼NW¼ sec. 18, T.21 N., R.1 W.	.11
Union Creek tributary 3 mi southwest of Madison in SW¼SE¼ sec. 2, T.21 N., R.2 W.	0
Union Creek tributary 2 mi southwest of Madison in SE¼SE¼ sec. 12, T.21 N., R.2 W.	.10
Taylor Creek 6 mi northwest of Madison in SW¼NW¼ sec. 21, T.22 N., R.2 W.	0
Taylor Creek 4 mi northwest of Madison in NE¼NE¼ sec. 27, T.22 N., R.2 W.	2.7
Taylor Creek 2 mi northwest of Madison in SW¼NW¼ sec. 30, T.22 N., R.1 W.	6.9
North Taylor Creek 4 mi northwest of Madison in NW¼NE¼ sec. 24, T.22 N., R.2 W.	.06
Union Creek at Madison (gage) in SW¼SE¼ sec. 32, T.22 N., R.1 W.	10
Meridian Creek 1 mi northwest of Creston in NW¼SE¼ sec. 12, T.20 N., R.1 W.	0
Tracy Creek 2 mi northwest of Creston in SE¼NE¼ sec. 10, T.20 N., R.1 W.	0
Meridian Creek 2 mi north of Creston in SE¼SW¼ sec. 31, T.21 N., R.1 E.	.02
Meridian Creek tributary 3 mi northeast of Creston in SW¼SW¼ sec. 32, T.21 N., R.1 E.	0
Meridian Creek 4 mi north of Creston in NE¼NE¼ sec. 30, T.21 N., R.1 E.	.01
Meridian Creek tributary 5 mi north of Creston in NW¼NW¼ sec. 20, T.21 N., R.1 E.	0
Meridian Creek 7 mi north of Creston in SE¼SE¼ sec. 12, T.21 N., R.1 W.	.13
Union Creek 5 mi east of Madison in NE¼NW¼ sec. 6, T.21 N., R.1 E.	11
Sand Creek 5 mi northeast of Madison in SE¼NE¼ sec. 14, T.22 N., R.1 W.	0
Sand Creek 6 mi northeast of Madison in NE¼NE¼ sec. 13, T.22 N., R.1 W.	.02
Sand Creek 7 mi northeast of Madison in SW¼SW¼ sec. 16, T.22 N., R.1 E.	.13
Union Creek tributary 7 mi southwest of Stanton in NE¼NE¼ sec. 27, T.22 N., R.1 E.	0
Union Creek 6 mi southwest of Stanton in SE¼SE¼ sec. 15, T.22 N., R.1 E.	13
Union Creek 3 mi southwest of Stanton in NW¼NW¼ sec. 6, T.22 N., R.2 E.	17
Butterfly Creek 2 mi south of Stanton in SW¼SE¼ sec. 32, T.23 N., R.2 E.	0
Meskenthine Creek 3 mi southeast of Hoskins in SW¼SE¼ sec. 2, T.24 N., R.1 E.	0
Meskenthine Creek 4 mi southeast of Hoskins in SW¼SE¼ sec. 12, T.24 N., R.1 E.	0
Meskenthine Creek 5 mi north of Stanton in SE¼SW¼ sec. 34, T.24 N., R.2 E.	.04
Meskenthine Creek 3 mi north of Stanton in SE¼SE¼ sec. 6, T.23 N., R.2 E.	0
Meskenthine Creek at Stanton in SE¼SW¼ sec. 20, T.23 N., R.2 E.	0
Elkhorn River at Stanton in SE¼NE¼ sec. 29, T.23 N., R.2 E.	236
Indian Creek 3 mi north of Stanton in NW¼NE¼ sec. 8, T.23 N., R.2 E.	.04
Indian Creek at Stanton in NW¼NW¼ sec. 21, T.23 N., R.2 E.	.01
Cedar Creek 7 mi southeast of Stanton in NE¼SE¼ sec. 7, T.22 N., R.3 E.	0
Cedar Creek 7 mi southeast of Stanton in SW¼SE¼ sec. 5, T.22 N., R.3 E.	.02
Cedar Creek 4 mi east of Stanton in SE¼NE¼ sec. 24, T.23 N., R.2 E.	.02
Cedar Creek 4 mi east of Stanton in SW¼SE¼ sec. 13, T.23 N., R.2 E.	0
Payne Creek 6 mi north of Stanton in SE¼SE¼ sec. 20, T.24 N., R.2 E.	.02
Payne Creek 6 mi northeast of Stanton in SW¼SE¼ sec. 26, T.24 N., R.2 E.	.06
Payne Creek 4 mi northeast of Stanton in NW¼SE¼ sec. 12, T.23 N., R.2 E.	.04
North Branch Humbug Creek 5 mi northwest of Pilger in SE¼SE¼ sec. 7, T.24 N., R.3 E.	1.1
South Branch Humbug Creek 4 mi northwest of Pilger in NE¼NE¼ sec. 19, T.24 N., R.3 E.	.01
Humbug Creek 3 mi northwest of Pilger in SE¼NE¼ sec. 20, T.24 N., R.3 E.	1.0
Humbug Creek 1 mi west of Pilger in NE¼NE¼ sec. 4, T.23 N., R.3 E.	1.8
Elkhorn River 1 mi south of Pilger in NW¼SW¼ sec. 2, T.23 N., R.3 E.	231
Sand Creek 3 mi northeast of Pilger in SE¼NW¼ sec. 29, T.24 N., R.4 E.	Trace
Sand Creek 4 mi east of Pilger in SE¼SE¼ sec. 29, T.24 N., R.4 E.	.03
Leisy Creek 2 mi southwest of Wisner in NW¼SE¼ sec. 10, T.23 N., R.4 E.	0
Elkhorn River at Wisner in SE¼NE¼ sec. 11, T.23 N., R.4 E.	240
Rock Creek 7 mi southwest of Beemer in NW¼SW¼ sec. 2, T.22 N., R.4 E.	0
Rock Creek 6 mi southwest of Beemer in NE¼NE¼ sec. 11, T.22 N., R.4 E.	.85
Rock Creek 4 mi southwest of Beemer in NW¼NW¼ sec. 8, T.22 N., R.5 E.	2.8
Rock Creek 2 mi west of Beemer in SW¼NW¼ sec. 34, T.23 N., R.5 E.	7.8

PLATTE RIVER BASIN--Continued

Elkhorn River basin--Continued

Location	Observation of zero flow or measured discharge, in cubic feet per second September 28, October 1-2, 1979
Elkhorn River 1 mi south of Beemer in SW¼NE¼ sec. 2, T.22 N., R.5 E.	251
Elkhorn River at West Point (gage) in SW¼NW¼ sec. 34, T.22 N., R.6 E.	245
Fisher Creek 6 mi northwest of West Point in NW¼SW¼ sec. 14, T.22 N., R.5 E.	0
Fisher Creek 5 mi northwest of West Point in NW¼NE¼ sec. 24, T.22 N., R.5 E.	.01
Fisher Creek 3 mi northwest of West Point in NW¼NW¼ sec. 29, T.22 N., R.6 E.	.03
Fisher Creek 2 mi west of West Point in NW¼NE¼ sec. 5, T.21 N., R.6 E.	Trace
Fisher Creek tributary 6 mi west of West Point in SW¼NW¼ sec. 26, T.22 N., R.5 E.	0
Fisher Creek tributary 5 mi west of West Point in NW¼NW¼ sec. 36, T.22 N., R.5 E.	Trace
Fisher Creek tributary 3 mi southwest of West Point in SE¼NE¼ sec. 7, T.21 N., R.6 E.	.02
Pebble Creek 11 mi west of West Point in NW¼NW¼ sec. 1, T.21 N., R.4 E.	0
Pebble Creek 9 mi southwest of West Point in NW¼NW¼ sec. 8, T.21 N., R.5 E.	.05
North Branch Pebble Creek 8 mi west of West Point in NW¼NE¼ sec. 32, T.22 N., R.5 E.	0
North Branch Pebble Creek tributary 9 mi west of West Point in NW¼NW¼ sec. 32, T.22 N., R.5 E.	0
North Branch Pebble Creek 8 mi west of West Point in NE¼NE¼ sec. 5, T.21 N., R.5 E.	.05
Pebble Creek 7 mi southwest of West Point in SW¼NW¼ sec. 10, T.21 N., R.5 E.	.53
South Branch Pebble Creek 8 mi southwest of West Point in SE¼SE¼ sec. 16, T.21 N., R.5 E.	0
Pebble Creek 3 mi north of Snyder in SE¼SW¼ sec. 36, T.21 N., R.5 E.	.58
Pebble Creek tributary 1 mi northwest of Dodge in SW¼SW¼ sec. 6, T.20 N., R.5 E.	0
Pebble Creek tributary 1 mi east of Dodge in SW¼SW¼ sec. 9, T.20 N., R.5 E.	.03
Tributary to Pebble Creek tributary 4 mi south of Dodge in NE¼NW¼ sec. 5, T.19 N., R.5 E.	0
Tributary to Pebble Creek tributary 4 mi southwest of Snyder in NW¼SW¼ sec. 34, T.20 N., R.5 E.	0
Tributary to Pebble Creek tributary 3 mi southwest of Snyder in SW¼SE¼ sec. 27, T.20 N., R.5 E.	0
Tributary to Pebble Creek tributary 1 mi southwest of Snyder in NW¼SW¼ sec. 24, T.20 N., R.5 E.	.06
Pebble Creek tributary at Snyder in NE¼NE¼ sec. 24, T.20 N., R.5 E.	.50
Silver Creek 7 mi southwest of Snyder in NW¼NW¼ sec. 7, T.19 N., R.5 E.	0
Silver Creek 7 mi southwest of Snyder in NW¼NW¼ sec. 16, T.19 N., R.5 E.	.03
Silver Creek 7 mi southwest of Snyder in NE¼NW¼ sec. 22, T.19 N., R.5 E.	.02
Pebble Creek at Scribner (gage) in NW¼SE¼ sec. 36, T.20 N., R.6 E. (gage rating discharge)	4.8

Discharge measurements and observations of zero flow were made on tributaries to the Platte River in Lincoln County, Nebr., and on the Republican River and tributaries in Hitchcock, Hayes, Lincoln, Red Willow, Frontier, Furnas, and Gosper Counties, Nebr., in April and May 1980. Conditions were good, as the last precipitation at McCook, prior to the start of the measurements, was 0.06 inch on April 17. Light precipitation occurred on April 30, amounting to 0.03 inch. Locations are listed in downstream order.

PLATTE RIVER BASIN

Location	Observation of zero flow or measured discharge, in cubic feet per second
	April 28 - May 1, 1980
Fremont slough 2 mi south of Hershey in NE¼NE¼ sec. 5, T.13 N., R.32 W.	Trace
Fremont slough 5 mi southeast of Hershey in NE¼NW¼ sec. 7, T.13 N., R.31 W.	0
Fremont slough 6 mi southeast of Hershey in NW¼NW¼ sec. 8, T.13 N., R.31 W.	.33
Fremont slough 4 mi southwest of North Platte in SE¼SE¼ sec. 11, T.13 N., R.31 W.	12
Fremont slough 2 mi south of North Platte in SW¼NW¼ sec. 16, T.13 N., R.30 W.	25
Fremont slough below Maloney tailrace in NW¼NW¼ sec. 13, T.13 N., R.30 W.	8.0
Moran Canyon 6 mi southwest of Maxwell in SW¼NW¼ sec. 34, T.13 N., R.29 W.	0
Box Elder Canyon 4 mi southwest of Maxwell in SW¼NE¼ sec. 12, T.12 N., R.28 W.	0
Cottonwood Canyon 5 mi south of Maxwell in SW¼NW¼ sec. 21, T.12 N., R.28 W.	0
Cottonwood Canyon 4 mi south of Maxwell in NE¼NE¼ sec. 16, T.12 N., R.28 W.	.39
Snell Canyon 7 mi southwest of Brady in SE¼SW¼ sec. 36, T.12 N., R.28 W.	0
Creek above Jeffery Reservoir in SW¼SE¼ sec. 17, T.11 N., R.27 W.	0
Jeffery Canyon 5 mi south of Brady in SW¼SE¼ sec. 2, T.11 N., R.27 W.	0

KANSAS RIVER BASIN

Republican River basin

Location	Observation of zero flow or measured discharge, in cubic feet per second
East Muddy Creek 7 mi northwest of Stratton in NW¼NE¼ sec. 18, T.3 N., R.35 W.	0
East Muddy Creek tributary 6 mi northwest of Stratton in SW¼SE¼ sec. 17, T.3 N., R.35 W.	0
East Muddy Creek 3 mi northwest of Stratton in NW¼NE¼ sec. 4, T.2 N., R.35 W.	Ponded
Muddy Creek at Stratton (gage) in NW¼NE¼ sec. 14, T.2 N., R.35 W.	.29
Republican River at Stratton (gage) in SW¼NW¼ sec. 13, T.2 N., R.35 W.	181
Hay Canyon at Stratton in SW¼SE¼ sec. 12, T.2 N., R.35 W.	0
Republican River tributary 3 mi southeast of Stratton in NE¼NE¼ sec. 20, T.2 N., R.34 W.	0
Camp Creek 4 mi northeast of Stratton in SE¼NW¼ sec. 30, T.3 N., R.34 W.	0
Camp Creek 3 mi east of Stratton in NW¼NW¼ sec. 9, T.2 N., R.34 W.	.20
Republican River tributary 5 mi southeast of Stratton in NE¼NE¼ sec. 22, T.2 N., R.34 W.	0
Dry Canyon 5 mi northeast of Stratton in NW¼NE¼ sec. 34, T.3 N., R.34 W.	0
Dry Canyon 5 mi northeast of Stratton in NE¼NE¼ sec. 3, T.2 N., R.34 W.	.29
Jones Canyon 6 mi southwest of Trenton in NW¼NE¼ sec. 24, T.2 N., R.34 W.	0
Macklin Canyon 5 mi west of Trenton in SW¼SW¼ sec. 25, T.3 N., R.34 W.	0
Spring Canyon 4 mi southwest of Trenton in NE¼NW¼ sec. 20, T.2 N., R.33 W.	0
Meeker Canal 2 mi southwest of Trenton in SE¼NE¼ sec. 9, T.2 N., R.33 W.	0
Republican River 2 mi southwest of Trenton (gage) in NW¼SE¼ sec. 4, T.2 N., R.33 W.	2.4
Elm Creek 5 mi northwest of Trenton in SW¼SW¼ sec. 19, T.3 N., R.33 W.	0
Elm Creek 2 mi west of Trenton in SW¼SW¼ sec. 33, T.3 N., R.33 W.	.35
Black Canyon 2 mi southwest of Trenton in NW¼NW¼ sec. 10, T.2 N., R.33 W.	0
Big Canyon 1 mi southeast of Trenton in SW¼SE¼ sec. 1, T.2 N., R.33 W.	0
Massacre Canyon 3 mi northeast of Trenton in SW¼NE¼ sec. 30, T.3 N., R.32 W.	.06
Thompson Canyon 3 mi east of Trenton in SE¼SW¼ sec. 32, T.3 N., R.32 W.	0
Frenchman Creek 2 mi east of Wauneta in SE¼SE¼ sec. 12, T.5 N., R.36 W.	22
Horse Canyon 4 mi northwest of Hamlet in SW¼NE¼ sec. 17, T.5 N., R.35 W.	0
Frenchman Creek 3 mi west of Hamlet in NE¼NW¼ sec. 22, T.5 N., R.35 W.	25
Frenchman Creek 1 mi west of Hamlet in SW¼NE¼ sec. 23, T.5 N., R.35 W.	26
Frenchman Creek 1 mi east of Hamlet in NE¼NE¼ sec. 30, T.5 N., R.34 W.	29
Frenchman Creek 1 mi west of Palisade (gage) in SW¼SE¼ sec. 36, T.5 N., R.34 W.	32
Stinking Water Creek 6 mi northeast of Wauneta in SE¼SW¼ sec. 7, T.6 N., R.35 W.	20
Stinking Water Creek 6 mi northwest of Hamlet in SE¼NW¼ sec. 27, T.6 N., R.35 W.	24
Stinking Water Creek tributary 4 mi north of Hamlet in SW¼SW¼ sec. 31, T.6 N., R.34 W.	0
Stinking Water Creek 3 mi northeast of Hamlet in SW¼SW¼ sec. 5, T.5 N., R.34 W.	28
Stinking Water Creek 4 mi northeast of Hamlet in SW¼SE¼ sec. 15, T.5 N., R.34 W.	31
Stinking Water Creek 2 mi northwest of Palisade (gage) in SW¼NW¼ sec. 30, T.5 N., R.33 W.	34
Culbertson Diversion Canal 1 mi north of Palisade in NW¼NE¼ sec. 31, T.5 N., R.33 W. (irrigation supervisor estimate)	56
Bobtail Creek 2 mi south of Palisade in SE¼NW¼ sec. 13, T.4 N., R.34 W.	.59
Bobtail Creek at Palisade in SW¼NE¼ sec. 1, T.4 N., R.34 N.	.91
Frenchman Creek 2 mi east of Palisade in NW¼NW¼ sec. 5, T.4 N., R.33 W.	14
Frenchman Creek 4 mi southeast of Palisade in SE¼SE¼ sec. 9, T.4 N., R.35 W.	21
Rogers Canyon 5 mi southeast of Palisade in SW¼SW¼ sec. 15, T.4 N., R.33 W.	0
Boevau Canyon 6 mi southeast of Palisade in NW¼SW¼ sec. 23, T.4 N., R.33 W.	0
Frenchman Creek 6 mi southeast of Palisade in SW¼NE¼ sec. 23, T.4 N., R.33 W.	25
Six-Mile Canyon 6 mi southeast of Palisade in SE¼SE¼ sec. 14, T.4 N., R.33 W.	.09

Republican River basin--Continued

Location	Observation of zero flow or measured discharge, in cubic feet per second
	April 28 - May 1, 1980
Frenchman Creek 8 mi northwest of Culbertson in NW¼SW¼ sec. 29, T.4 N., R.32 W.	27
Frenchman Creek 2 mi west of Culbertson (gage) in SW¼SE¼ sec. 12, T.3 N., R.32 W.	40
Frenchman Creek tributary at Culbertson in SW¼SE¼ sec. 8, T.3 N., R.31 W.	.01
Frenchman Creek at Culbertson in NE¼SE¼ sec. 17, T.3 N., R.31 W.	46
Blackwood Creek 6 mi north of Culbertson in NW¼SW¼ sec. 17, T.4 N., R.31 W.	0
Blackwood Creek 2 mi north of Culbertson in NE¼NW¼ sec. 4, T.3 N., R.31 W.	1.8
Lateral canal entering Blackwood Creek 1 mi east of Culbertson in SE¼SW¼ sec. 10, T.3 N., R.31 W.	1.0
Blackwood Creek 1 mi east of Culbertson (gage) in SE¼SW¼ sec. 10, T.3 N., R.31 W.	3.8
Drain 6 mi west of McCook in NW¼NW¼ sec. 20, T.3 N., R.30 W.	0
Drain 5 mi west of McCook in NW¼SW¼ sec. 21, T.3 N., R.30 W.	.83
Republican River tributary 5 mi northwest of McCook in NW¼NW¼ sec. 10, T.3 N., R.30 W.	0
Republican River tributary 3 mi west of McCook in SE¼NE¼ sec. 27, T.3 N., R.30 W.	.72
Driftwood Creek 13 mi southwest of McCook in NW¼SW¼ sec. 35, T.2 N., R.31 W.	0
Driftwood Creek 12 mi southwest of McCook in NW¼NE¼ sec. 35, T.2 N., R.31 W.	.16
Driftwood Creek 6 mi southwest of McCook in SW¼NW¼ sec. 15, T.2 N., R.30 W.	4.3
Driftwood Creek 4 mi southwest of McCook (gage) in SW¼SW¼ sec. 12, T.2 N., R.30 W.	5.8
Driftwood Creek 3 mi southwest of McCook in NE¼NW¼ sec. 1, T.2 N., R.30 W.	6.8
Republican River at McCook (gage) in SW¼NE¼ sec. 32, T.3 N., R.29 W.	90
Republican River tributary at McCook in NE¼SW¼ sec. 28, T.3 N., R.29 W.	.05
Republican River tributary 3 mi east of McCook in SE¼NW¼ sec. 26, T.3 N., R.29 W.	.86
River Canyon 5 mi northeast of McCook in SE¼SW¼ sec. 18, T.3 N., R.28 W.	0
Ash Creek 7 mi east of McCook in SW¼SW¼ sec. 21, T.3 N., R.28 W.	.12
Red Willow Creek 1 mi southeast of Wallace in NE¼NE¼ sec. 24, T.10 N., R.34 W.	0
Red Willow Creek 3 mi southeast of Wallace in NE¼NE¼ sec. 30, T.10 N., R.33 W.	.55
Red Willow Creek tributary 3 mi south of Wallace in SW¼NW¼ sec. 36, T.10 N., R.34 W.	0
Red Willow Creek 7 mi southeast of Wallace in SE¼SW¼ sec. 3, T.9 N., R.33 W.	1.7
Red Willow Creek 10 mi southeast of Wallace in NW¼SE¼ sec. 25, T.9 N., R.33 W.	4.8
Suttlers Canyon 10 mi northeast of Hayes Center in SW¼NW¼ sec. 21, T.8 N., R.32 W.	0
Red Willow Creek 10 mi northeast of Hayes Center in SE¼NW¼ sec. 21, T.8 N., R.32 W.	8.3
Red Willow Creek 9 mi northeast of Hayes Center in NE¼NW¼ sec. 34, T.8 N., R.32 W.	10
Red Willow Creek tributary 7 mi northeast of Hayes Center in NW¼SW¼ sec. 24, T.7 N., R.32 W.	.05
Red Willow Creek 7 mi northeast of Hayes Center in NE¼SW¼ sec. 24, T.7 N., R.32 W.	15
Red Willow Creek 9 mi east of Hayes Center in SE¼NW¼ sec. 9, T.6 N., R.31 W.	18
Burger Canyon 11 mi southeast of Hayes Center in SE¼NW¼ sec. 27, T.6 N., R.31 W.	0
Red Willow Creek 12 mi southeast of Hayes Center in SE¼NW¼ sec. 35, T.6 N., R.31 W.	20
Kucera Canyon 12 mi southeast of Hayes Center in NE¼SE¼ sec. 34, T.6 N., R.31 W.	0
Red Willow Creek above Hugh Butler Lake (gage) in NE¼SE¼ sec. 13, T.5 N., R.31 W.	21
Sand Creek 14 mi southeast of Hayes Center in SW¼SW¼ sec. 31, T.6 N., R.30 W.	0
Spring Creek 17 mi southeast of Hayes Center in NW¼NW¼ sec. 2, T.5 N., R.30 W.	0
Spring Creek tributary 19 mi southeast of Hayes Center in SE¼SW¼ sec. 36, T.6 N., R.30 W.	0
Red Willow Creek 10 mi north of McCook (gage) in SW¼NW¼ sec. 6, T.4 N., R.29 W.	3.8
Bee Canyon 10 mi north of McCook in NE¼SW¼ sec. 5, T.4 N., R.29 W.	0
Red Willow Creek 8 mi northeast of McCook in SW¼SE¼ sec. 15, T.4 N., R.29 W.	8.6
Red Willow Creek 7 mi northeast of McCook in NE¼NE¼ sec. 36, T.4 N., R.29 W.	7.7
Red Willow Creek tributary 7 mi northeast of McCook in NW¼NW¼ sec. 5, T.3 N., R.28 W.	0
Red Willow Creek near Red Willow (gage) in NE¼NE¼ sec. 17, T.3 N., R.28 W.	8.3
Republican River tributary 1 mi west of Indianola in SE¼SE¼ sec. 11, T.3 N., R.28 W.	0
Coon Creek 2 mi north of Indianola in NW¼NW¼ sec. 1, T.3 N., R.28 W.	0
Coon Creek at Indianola in SW¼SE¼ sec. 12, T.3 N., R.28 W.	.04
Buffalo Creek 1 mi south of Indianola in SE¼SW¼ sec. 30, T.3 N., R.27 W.	0
Republican River tributary 2 mi southeast of Indianola in NE¼SE¼ sec. 17, T.3 N., R.27 W.	0
School Creek 3 mi southeast of Indianola in SE¼NE¼ sec. 16, T.3 N., R.27 W.	0
Dry Creek at Bartley in SW¼SE¼ sec. 1, T.3 N., R.27 W.	0
Sleepy Hollow Creek 2 mi south of Bartley in SW¼NE¼ sec. 13, T.3 N., R.27 W.	0
Republican River tributary at Bartley in NW¼SE¼ sec. 6, T.3 N., R.26 W.	0
Republican River tributary 2 mi east of Bartley in NW¼NW¼ sec. 4, T.3 N., R.26 W.	0
Silver Creek 4 mi east of Bartley in SE¼SW¼ sec. 2, T.3 N., R.26 W.	0
Bogus Canyon 3 mi southwest of Cambridge in SW¼SE¼ sec. 1, T.3 N., R.26 W.	0
Republican River tributary 2 mi south of Cambridge in SE¼SW¼ sec. 6, T.3 N., R.25 W.	0
Medicine Creek 9 mi northwest of Wellfleet in SE¼SE¼ sec. 17, T.10 N., R.31 W.	1.1
Medicine Creek 5 mi northwest of Wellfleet in NW¼NE¼ sec. 35, T.10 N., R.31 W.	4.3
Medicine Creek 1 mi northwest of Wellfleet in SE¼SE¼ sec. 8, T.9 N., R.30 W.	14
Medicine Creek 2 mi southeast of Wellfleet in SW¼NW¼ sec. 24, T.9 N., R.30 W.	18
Hay Canyon 3 mi east of Wellfleet in SE¼NW¼ sec. 7, T.9 N., R.29 W.	0
Medicine Creek at Maywood in NE¼NE¼ sec. 21, T.8 N., R.29 W.	26
Medicine Creek 3 mi southeast of Maywood in NE¼SW¼ sec. 25, T.8 N., R.29 W.	28
Brushy Creek 2 mi south of Maywood in SE¼SE¼ sec. 29, T.8 N., R.29 W.	.29
Brushy Creek 3 mi southeast of Maywood in NE¼NE¼ sec. 35, T.8 N., R.29 W.	2.6
Well Canyon 1 mi west of Curtis in NE¼NW¼ sec. 32, T.8 N., R.28 W.	0
Medicine Creek at Curtis in NW¼NW¼ sec. 33, T.8 N., R.28 W.	33
Fox Creek 13 mi north of Curtis in NE¼NW¼ sec. 28, T.10 N., R.28 W.	0
Fox Creek 8 mi north of Curtis in SW¼SE¼ sec. 17, T.9 N., R.28 W.	1.7
Cut Canyon 7 mi north of Curtis in NW¼NE¼ sec. 20, T.9 N., R.28 W.	.89
Fox Creek 1 mi east of Curtis (gage) in SE¼NW¼ sec. 27, T.8 N., R.28 W.	7.0
Curtis Creek 3 mi southeast of Curtis in NW¼SW¼ sec. 36, T.8 N., R.28 W.	.47

Republican River basin--Continued

Location	Observation of zero flow or measured discharge, in cubic feet per second April 28 - May 1, 1980
Medicine Creek 4 mi southeast of Curtis in SW¼NW¼ sec. 1, T.7 N., R.28 W.	46
Dry Creek 4 mi southeast of Curtis in SE¼NE¼ sec. 1, T.7 N., R.28 W.	0
Medicine Creek at Stockville in SW¼NE¼ sec. 34, T.7 N., R.27 W.	53
Spring Creek at Stockville in SW¼SW¼ sec. 34, T.7 N., R.27 W.	0
Cedar Creek 2 mi south of Stockville in SE¼SW¼ sec. 3, T.6 N., R.27 W.	.20
Walnut Creek 4 mi southeast of Stockville in SW¼SW¼ sec. 12, T.6 N., R.27 W.	0
Medicine Creek above Harry Strunk Lake (gage) in NW¼SW¼ sec. 7, T.6 N., R.26 W.	56
Mitchell Creek 8 mi southeast of Stockville in NW¼SE¼ sec. 22, T.6 N., R.26 W.	0
Lime Creek 9 mi northwest of Cambridge in SE¼NW¼ sec. 15, T.5 N., R.26 W.	.34
Medicine Creek below Harry Strunk Lake (gage) in SW¼NE¼ sec. 25, T.5 N., R.26 W.	45
Elk Creek 7 mi northwest of Cambridge in NE¼SW¼ sec. 25, T.5 N., R.26 W.	.17
Medicine Creek 2 mi north of Cambridge in SE¼SE¼ sec. 18, T.4 N., R.25 W.	48
Medicine Creek at Cambridge in NW¼SW¼ sec. 28, T.4 N., R.25 W.	47
Republican River at Cambridge in NW¼SE¼ sec. 28, T.4 N., R.25 W.	182
Deer Creek 12 mi north of Cambridge in NW¼NE¼ sec. 31, T.6 N., R.25 W.	0
Deer Creek 11 mi north of Cambridge in NW¼NW¼ sec. 5, T.5 N., R.25 W.	Trace
Deer Creek 10 mi north of Cambridge in NW¼SW¼ sec. 4, T.5 N., R.25 W.	.19
Deer Creek 7 mi northwest of Holbrook in SE¼SW¼ sec. 24, T.5 N., R.25 W.	1.1
Deer Creek 3 mi northwest of Holbrook in SW¼SW¼ sec. 4, T.4 N., R.24 W.	1.5
Deer Creek at Holbrook in NE¼NE¼ sec. 22, T.4 N., R.24 W.	2.3
Deer Creek above mouth at Holbrook in SW¼NW¼ sec. 23, T.4 N., R.24 W.	1.6
Muddy Creek 12 mi south of Eustis in SW¼SE¼ sec. 8, T.6 N., R.24 W.	.52
Muddy Creek 14 mi south of Eustis in SW¼SW¼ sec. 28, T.6 N., R.24 W.	1.1
West Muddy Creek 15 mi south of Eustis in SW¼NW¼ sec. 33, T.6 N., R.24 W.	.18
Muddy Creek 6 mi northeast of Holbrook in NW¼SW¼ sec. 19, T.5 N., R.23 W.	4.7
Elder Creek 6 mi northeast of Holbrook in NE¼SE¼ sec. 19, T.5 N., R.23 W.	.03
East Branch Muddy Creek 6 mi north of Holbrook in NE¼NW¼ sec. 29, T.5 N., R.23 W.	.20
Muddy Creek at Arapahoe (gage) in NW¼NW¼ sec. 22, T.4 N., R.23 W.	7.4

KANSAS RIVER BASIN

Discharge measurements and observations of zero flow were made on Big Blue River tributaries from near DeWitt to Beatrice in Saline, Gage, and Jefferson Counties, Nebr., and on the Little Blue River and tributaries in Adams, Clay, Nuckolls, and Thayer Counties, Nebr., in October 1979. Conditions had been dry the first part of October. About one-half inch of precipitation occurred in the area on October 22 but did not produce much surface runoff. No further precipitation occurred before October 29. Locations are listed in downstream order.

Big Blue River basin

Location	Observation of zero flow or measured discharge, in cubic feet per second
	October 29, 1979
Prairie Creek 3 mi north of DeWitt in SW¼SW¼ sec. 25, T.6 N., R.4 E.	0
Clatonia Creek at Clatonia in SW¼SE¼ sec. 22, T.6 N., R.5 E.	0
Clatonia Creek 1 mi east of DeWitt in SW¼SE¼ sec. 18, T.5 N., R.5 E.	.22
Turkey Creek 3 mi southeast of DeWitt in SE¼SW¼ sec. 29, T.5 N., R.5 E.	14
Soap Creek 4 mi east of DeWitt in SW¼SW¼ sec. 15, T.5 N., R.5 E.	0
Soap Creek 5 mi southeast of DeWitt in SE¼SW¼ sec. 27, T.5 N., R.4 E.	.11
Big Blue River tributary 6 mi southeast of DeWitt in SW¼NE¼ sec. 10, T.4 N., R.5 E.	0
Snake Creek 6 mi southeast of DeWitt in SE¼NE¼ sec. 2, T.4 N., R.5 E.	0
Snake Creek 7 mi southeast of DeWitt in NE¼NE¼ sec. 35, T.5 N., R.5 E.	0
Cub Creek 4 mi north of Jansen in SW¼SE¼ sec. 3, T.3 N., R.3 E.	0
Cub Creek 4 mi north of Harbine in NW¼NW¼ sec. 9, T.3 N., R.4 E.	.20
Cub Creek 8 mi northwest of Beatrice in SW¼NW¼ sec. 29, T.4 N., R.5 E.	.30
Cub Creek 5 mi northwest of Beatrice in NE¼NW¼ sec. 26, T.4 N., R.5 E.	.75

Little Blue River basin

	October 24-25, 1979
Little Blue River 3 mi southwest of Ayr in NW¼NW¼ sec. 17, T.5 N., R.10 W.	0
Dove Creek 4 mi southwest of Ayr in SW¼SE¼ sec. 17, T.5 N., R.10 W.	0
Dove Creek tributary 4 mi southwest of Ayr in SW¼SW¼ sec. 17, T.5 N., R.10 W.	0
Little Blue River 2 mi southwest of Ayr in SW¼SW¼ sec. 9, T.5 N., R.10 W.	0
Little Blue River tributary 1 mi north of Ayr in NW¼SE¼ sec. 28, T.6 N., R.10 W.	0
Little Blue River 1 mi northeast of Ayr in SE¼SE¼ sec. 27, T.6 N., R.10 W.	6.0
Thirty-two Mile Creek 2 mi northeast of Ayr in NW¼NW¼ sec. 26, T.6 N., R.10 W.	0
Little Blue River 4 mi east of Ayr in SE¼SE¼ sec. 32, T.6 N., R.9 W.	17
Ash Creek 5 mi southeast of Ayr in NW¼NW¼ sec. 9, T.5 N., R.9 W.	.11
Little Blue River 8 mi southeast of Ayr in NW¼SW¼ sec. 12, T.5 N., R.9 W.	32
Crooked Creek 8 mi southeast of Ayr in SW¼SW¼ sec. 13, T.5 N., R.9 W.	0
Oak Creek 8 mi northwest of Deweese in SE¼SW¼ sec. 18, T.5 N., R.8 W.	0
Pawnee Creek 7 mi east of Ayr in NE¼NW¼ sec. 34, T.6 N., R.9 W.	0
Pawnee Creek tributary 7 mi northeast of Ayr in SW¼SW¼ sec. 23, T.6 N., R.9 W.	0
Pawnee Creek 9 mi northwest of Deweese in NE¼NE¼ sec. 6, T.5 N., R.8 W.	0
Pawnee Creek 8 mi northwest of Deweese in NW¼SW¼ sec. 4, T.5 N., R.8 W.	0
Pawnee Creek 6 mi northwest of Deweese in NE¼NE¼ sec. 16, T.5 N., R.8 W.	Trace
Little Blue River 5 mi northwest of Deweese in NW¼SW¼ sec. 15, T.5 N., R.8 W.	40
Little Blue River at Deweese in SW¼SW¼ sec. 29, T.5 N., R.7 W.	42
Dry Creek 1 mi west of Deweese in SW¼SW¼ sec. 31, T.5 N., R.7 W.	0
Dry Creek at Deweese in SW¼NW¼ sec. 32, T.5 N., R.7 W.	Trace
Little Blue River 3 mi southeast of Deweese (gage) in SW¼NW¼ sec. 12, T.4 N., R.7 W.	46
Little Blue River tributary 3 mi east of Deweese in NW¼NE¼ sec. 2, T.4 N., R.7 W.	0
Walnut Creek 3 mi southeast of Deweese in SW¼SW¼ sec. 11, T.4 N., R.7 W.	0
Walnut Creek 4 mi southeast of Deweese in SW¼SW¼ sec. 12, T.4 N., R.7 W.	.23
Oxbow Creek 1 mi southwest of Angus in NW¼SW¼ sec. 34, T.4 N., R.6 W.	0
Little Blue River at Angus in NW¼NW¼ sec. 35, T.4 N., R.6 W.	44
Elk Creek 4 mi west of Nelson in NE¼NE¼ sec. 30, T.3 N., R.7 W.	0
Elk Creek at Nelson in NE¼SE¼ sec. 26, T.3 N., R.7 W.	.22
Elk Creek 3 mi west of Oak in NW¼SW¼ sec. 14, T.3 N., R.6 W.	.68
Elk Creek 2 mi west of Oak in SE¼SE¼ sec. 12, T.3 N., R.6 W.	.42
Little Blue River at Oak in NW¼NW¼ sec. 17, T.3 N., R.5 W.	48
Oak Creek 1 mi southwest of Oak in NW¼SE¼ sec. 17, T.3 N., R.5 W.	0
Turtle Creek 1 mi southeast of Oak in SW¼SE¼ sec. 16, T.3 N., R.5 W.	0
Little Blue River 3 mi southeast of Oak in NW¼NW¼ sec. 23, T.3 N., R.5 W.	45
Thawes Creek 4 mi southeast of Oak in SE¼SE¼ sec. 23, T.3 N., R.5 W.	0
Little Blue River 6 mi northwest of Deshler in NW¼NW¼ sec. 21, T.3 N., R.4 W.	42
Little Blue River 5 mi north of Deshler in NE¼SE¼ sec. 23, T.3 N., R.4 W.	42
Little Blue River 4 mi northwest of Hebron in NE¼NE¼ sec. 28, T.3 N., R.3 W.	48
Spring Creek 2 mi east of Deshler in SE¼NE¼ sec. 18, T.2 N., R.3 W.	.10
South Branch Spring Creek 4 mi east of Deshler in NE¼NW¼ sec. 22, T.2 N., R.3 W.	.31
Spring Creek at Hebron in SE¼NE¼ sec. 12, T.2 N., R.3 W.	1.4
Little Blue River at Hebron in NW¼NW¼ sec. 8, T.2 N., R.2 W.	55
Dry Creek 4 mi southeast of Hebron in NE¼NE¼ sec. 32, T.2 N., R.2 W.	0
Dry Creek 3 mi southeast of Hebron in NE¼NE¼ sec. 15, T.2 N., R.2 W.	.20
Little Blue River 3 mi east of Hebron in NW¼NW¼ sec. 11, T.2 N., R.2 W.	56
Little Blue River 2 mi northwest of Gilead in SW¼NW¼ sec. 4, T.2 N., R.1 W.	54
Little Blue River 3 mi south of Alexandria in SW¼SE¼ sec. 23, T.3 N., R.1 W.	55

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPERATURE, WATER (DEG C) (00010)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM AD-SORPTION RATIO (00931)
NIOBRARA RIVER BASIN											
06459350 - AINSWORTH CANAL NR JOHNSTOWN NE (LAT 42 33 30 LONG 100 05 14)											
JUN , 1980											
09...	1530	45	169	8.5	24.0	63	0	20	3.2	6.4	.4
JUL											
28...	1515	600	180	7.4	25.5	66	0	21	3.4	6.9	.4
06462450 - PLUM CREEK AT JOHNSTOWN, NEBR (LAT 42 34 08 LONG 100 06 22)											
JUN , 1980											
09...	1500	24	200	8.0	22.5	68	0	22	3.2	7.2	.4
JUL											
28...	1445	21	177	7.0	24.5	65	0	21	3.0	6.3	.3
06462470 - PLUM CREEK NEAR JOHNSTOWN, NEBR (LAT 42 40 01 LONG 100 03 26)											
JUN , 1980											
09...	1630	71	181	8.2	23.0	70	0	23	3.1	6.8	.4
JUL											
28...	1600	54	175	7.2	25.0	67	0	22	2.9	6.4	.3
06463050 - LONG PINE CREEK AT LONG PINE, NEBR. (LAT 42 32 59 LONG 099 42 23)											
JUN , 1980											
10...	1500	54	130	6.9	24.0	49	0	16	2.1	5.2	.3
JUL											
29...	1530	49	130	7.3	21.5	47	0	15	2.2	5.3	.3

DATE	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)
06459350 - AINSWORTH CANAL NR JOHNSTOWN NE (LAT 42 33 30 LONG 100 05 14)										
JUN , 1980										
09...	5.6	83	4.7	.8	.3	42	133	.18	16.2	.10
JUL										
28...	6.1	74	5.6	1.0	.5	46	135	.18	219	.09
06462450 - PLUM CREEK AT JOHNSTOWN, NEBR (LAT 42 34 08 LONG 100 06 22)										
JUN , 1980										
09...	5.6	74	1.3	1.9	.3	48	156	.21	10.1	1.4
JUL										
28...	5.7	74	2.5	1.9	.5	53	144	.20	8.16	1.2
06462470 - PLUM CREEK NEAR JOHNSTOWN, NEBR (LAT 42 40 01 LONG 100 03 26)										
JUN , 1980										
09...	5.7	79	1.7	1.3	.3	54	147	.20	28.2	.78
JUL										
28...	5.7	74	2.4	.6	.5	59	147	.20	21.4	.67
06463050 - LONG PINE CREEK AT LONG PINE, NEBR. (LAT 42 32 59 LONG 099 42 23)										
JUN , 1980										
10...	4.0	64	.6	.8	.2	53	126	.17	18.4	1.3
JUL										
29...	4.3	50	1.1	.6	.4	55	119	.16	15.7	1.2

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)
NIOBRARA RIVER BASIN--Continued											
06463090 - BONE CREEK AT AINSWORTH, NEBR (LAT 42 32 51 LONG 099 52 33)											
JUN , 1980											
10...	1045	2.8	185	7.4	16.5	67	0	21	3.6	6.7	.4
JUL											
29...	1145	1.0	189	7.3	19.0	70	0	22	3.7	6.9	.4
06463290 - SAND DRAW NR JOHNSTOWN NE (LAT 42 34 08 LONG 099 58 08)											
JUN , 1980											
10...	0815	1.3	165	7.4	15.0	59	0	19	2.7	5.7	.3
JUL											
29...	0815	.50	150	7.1	17.0	56	0	18	2.6	5.2	.3
06463310 - SAND DRAW NR MEADVILLE NE (LAT 42 38 10 LONG 099 51 10)											
JUN , 1980											
10...	0930	5.7	255	8.2	21.0	90	0	28	4.8	13	.6
JUL											
29...	1000	5.0	272	7.5	23.0	95	0	29	5.4	15	.7
06463350 - BONE CREEK NEAR LONG PINE, NEBR (LAT 42 40 16 LONG 099 46 06)											
JUN , 1980											
10...	1230	44	260	8.3	26.0	86	0	27	4.4	9.5	.4
JUL											
29...	1300	42	238	8.0	28.0	88	0	28	4.5	10	.5

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
06463090 - BONE CREEK AT AINSWORTH, NEBR (LAT 42 32 51 LONG 099 52 33)										
JUN , 1980										
10...	4.5	80	.7	2.1	.2	47	145	.20	1.10	2.4
JUL										
29...	5.2	74	2.3	1.6	.4	51	149	.20	.40	2.5
06463290 - SAND DRAW NR JOHNSTOWN NE (LAT 42 34 08 LONG 099 58 08)										
JUN , 1980										
10...	3.2	62	.7	.7	.2	35	110	.15	.39	1.3
JUL										
29...	3.9	66	1.0	.4	.4	44	116	.16	.16	.09
06463310 - SAND DRAW NR MEADVILLE NE (LAT 42 38 10 LONG 099 51 10)										
JUN , 1980										
10...	7.0	100	6.6	2.4	.2	33	166	.23	2.55	2.4
JUL										
29...	8.4	120	8.3	1.9	.4	39	192	.26	2.59	2.7
06463350 - BONE CREEK NEAR LONG PINE, NEBR (LAT 42 40 16 LONG 099 46 06)										
JUN , 1980										
10...	7.4	96	3.3	4.0	.3	51	170	.23	20.2	1.2
JUL										
29...	8.7	110	4.5	3.5	.5	52	184	.25	20.9	1.3

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	COLOR (PLAT-INUM COBALT UNITS) (00080)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
NIOBRARA RIVER BASIN--Continued									
06465050 - EAGLE CREEK NEAR MIDWAY NEBR (LAT 42 38 02 LONG 098 46 29)									
APR , 1980 09...	1410	23	285	7.4	13.0	15	120	18	39
SEP 08...	1705	11	263	8.1	27.5	15	110	7	35
06465100 - EASTBRANCH EAGLE CREEK NR MIDWAY NEBR (LAT 42 37 30 LONG 098 45 56)									
APR , 1980 09...	1445	10	277	7.8	13.5	5	130	1	45
SEP 08...	1800	5.9	264	8.1	24.5	15	120	0	40
06465398 - REDBIRD CREEK NR MEEK NEBRASKA (LAT 42 39 33 LONG 098 33 31)									
APR , 1980 09...	1235	14	202	7.3	11.0	10	86	8	29
SEP 08...	1445	9.5	185	8.8	26.5	20	79	0	27
06465420 - BLACKBIRD CREEK NEAR MEEK NEBR (LAT 42 39 46 LONG 098 34 24)									
APR , 1980 09...	1315	9.2	281	7.6	12.5	15	130	10	44
SEP 08...	1555	2.2	242	8.5	28.5	10	110	0	36

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
06465050 - EAGLE CREEK NEAR MIDWAY NEBR (LAT 42 38 02 LONG 098 46 29)									
APR , 1980 09...	5.1	8.7	.3	5.7	100	10	3.8	.3	40
SEP 08...	4.7	9.0	.4	6.3	100	7.7	3.8	.3	47
06465100 - EASTBRANCH EAGLE CREEK NR MIDWAY NEBR (LAT 42 37 30 LONG 098 45 56)									
APR , 1980 09...	4.4	6.8	.3	5.0	130	5.0	1.3	.3	47
SEP 08...	4.1	6.4	.3	5.3	120	2.9	1.5	.4	55
06465398 - REDBIRD CREEK NR MEEK NEBRASKA (LAT 42 39 33 LONG 098 33 31)									
APR , 1980 09...	3.4	7.3	.3	4.3	78	9.9	2.1	.2	41
SEP 08...	2.9	6.6	.3	4.6	84	5.1	1.8	.3	48
06465420 - BLACKBIRD CREEK NEAR MEEK NEBR (LAT 42 39 46 LONG 098 34 24)									
APR , 1980 09...	4.8	8.5	.3	4.7	120	12	3.2	.3	39
SEP 08...	4.1	7.2	.3	5.3	120	5.2	2.0	.3	48

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
NIOBRARA RIVER BASIN--Continued								
06465050 - EAGLE CREEK NEAR MIDWAY NEBR (LAT 42 38 02 LONG 098 46 29)								
APR , 1980								
09...	196	.27	12.2	5.3	.130	20	30	8
SEP								
08...	192	.26	6.12	4.0	.130	40	20	3
06465100 - EASTBRANCH EAGLE CREEK NR MIDWAY NEBR (LAT 42 37 30 LONG 098 45 56)								
APR , 1980								
09...	197	.27	5.32	1.0	.110	20	10	6
SEP								
08...	191	.26	3.09	.71	.080	40	10	10
06465398 - REDBIRD CREEK NR MEEK NEBRASKA (LAT 42 39 33 LONG 098 33 31)								
APR , 1980								
09...	154	.21	5.82	2.1	.080	20	70	20
SEP								
08...	147	.20	3.80	.00	.100	40	20	4
06465420 - BLACKBIRD CREEK NEAR MEEK NEBR (LAT 42 39 46 LONG 098 34 24)								
APR , 1980								
09...	196	.27	4.87	1.7	.060	20	30	30
SEP								
08...	186	.25	1.10	1.3	.100	50	20	9

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPERATURE, WATER (DEG C) (00010)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)
PLATTE RIVER BASIN												
06778860 - FARWELL CANAL AT HWY 58 ABV SHERMAN RES NE (LAT 41 22 23 LONG 099 00 44)												
OCT , 1979 10...	1420	397	188	7.9	14.0	74	0	24	3.4	6.7	.3	6.5
JUN , 1980 05...	1700	46	196	8.3	30.0	78	0	25	3.7	7.3	.4	6.7
AUG 13...	1420	350	200	7.8	25.0	71	0	23	3.2	6.5	.3	6.5
06781530 - DEER CREEK NEAR BOELUS NE (LAT 41 05 37 LONG 098 42 37)												
JUN , 1980 05...	1405	.31	915	8.3	32.0	450	58	120	36	19	.4	17
06784400 - OAK CREEK NEAR FARWELL NE (LAT 41 11 30 LONG 098 41 25)												
OCT , 1979 11...	1320	12	616	7.8	16.0	280	0	84	18	17	.4	12
JUN , 1980 05...	1435	48	352	7.8	26.0	130	0	39	8.4	11	.4	9.9
AUG 14...	1450	16	560	7.9	24.0	240	0	73	15	16	.4	12
06784500 - OAK CREEK NR DANNEBROG NEBR (LAT 41 07 10 LONG 098 36 45)												
OCT , 1979 11...	1135	18	659	8.0	15.0	320	0	97	19	20	.5	13
JUN , 1980 05...	1240	53	412	7.7	25.0	160	0	47	10	12	.4	12
AUG 14...	1310	17	602	8.0	21.0	270	0	82	16	19	.5	13

DATE	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)
06778860 - FARWELL CANAL AT HWY 58 ABV SHERMAN RES NE (LAT 41 22 23 LONG 099 00 44)											
OCT , 1979 10...	81	10	1.1	.3	58	161	173	.22	173	3.3	.140
JUN , 1980 05...	89	4.8	1.1	.3	57	--	161	.22	20.0	.43	--
AUG 13...	74	7.7	2.1	.3	50	--	145	.20	137	.24	--
06781530 - DEER CREEK NEAR BOELUS NE (LAT 41 05 37 LONG 098 42 37)											
JUN , 1980 05...	390	110	11	.3	38	--	588	.80	.49	.53	--
06784400 - OAK CREEK NEAR FARWELL NE (LAT 41 11 30 LONG 098 41 25)											
OCT , 1979 11...	300	18	5.7	.3	48	390	390	.53	12.6	1.5	.490
JUN , 1980 05...	150	9.4	2.4	.3	47	--	222	.30	28.8	1.0	--
AUG 14...	260	18	5.7	.3	44	--	349	.47	15.1	2.0	--
06784500 - OAK CREEK NR DANNEBROG NEBR (LAT 41 07 10 LONG 098 36 45)											
OCT , 1979 11...	320	35	8.0	.3	49	441	441	.60	21.4	1.7	.430
JUN , 1980 05...	180	16	3.5	.3	44	--	259	.35	37.1	1.3	--
AUG 14...	280	34	8.9	.3	45	--	394	.54	18.1	1.7	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPERATURE, WATER (DEG C) (00010)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)
PLATTE RIVER BASIN--Continued												
06784505 - DRY C NR DANNEBROG NE (LAT 41 06 18 LONG 098 36 16)												
OCT , 1979												
11...	1210	1.8	880	8.0	15.0	430	72	130	26	34	.7	16
JUN , 1980												
05...	1310	2.2	1050	7.9	25.0	470	99	140	29	35	.7	16
AUG												
14...	1340	1.4	810	8.2	20.5	360	31	110	21	30	.7	15
06784750 - TURKEY CREEK NEAR NYSTED NE (LAT 41 10 48 LONG 098 36 50)												
OCT , 1979												
11...	1410	2.4	780	8.1	19.0	330	0	91	26	41	1.0	19
JUN , 1980												
05...	1530	3.5	732	7.8	30.0	300	0	85	22	36	.9	19
AUG												
14...	1540	1.8	690	7.9	23.0	270	0	77	19	36	1.0	15
06784810 - TURKEY CREEK NORTHEAST OF DANNEBROG NE (LAT 41 09 28 LONG 098 31 06)												
OCT , 1979												
11...	1155	6.3	757	7.9	13.5	320	0	91	22	39	1.0	19
JUN , 1980												
05...	1110	13	603	7.6	23.0	250	6	69	18	27	.7	11
AUG												
14...	1145	1.5	630	7.6	18.5	250	0	75	16	28	.8	15

DATE	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)
06784505 - DRY C NR DANNEBROG NE (LAT 41 06 18 LONG 098 36 16)											
OCT , 1979											
11...	360	130	15	.3	45	597	631	.81	2.90	4.2	.390
JUN , 1980											
05...	370	140	14	.3	44	--	660	.90	3.92	4.4	--
AUG											
14...	330	96	15	.3	33	--	534	.73	2.02	3.5	--
06784750 - TURKEY CREEK NEAR NYSTED NE (LAT 41 10 48 LONG 098 36 50)											
OCT , 1979											
11...	390	39	11	.3	29	489	498	.67	3.17	1.7	.260
JUN , 1980											
05...	340	25	10	.4	37	--	453	.62	4.28	3.1	--
AUG											
14...	330	29	11	.4	33	--	421	.57	2.05	.57	--
06784810 - TURKEY CREEK NORTHEAST OF DANNEBROG NE (LAT 41 09 28 LONG 098 31 06)											
OCT , 1979											
11...	350	53	12	.4	35	495	497	.67	8.42	3.4	.340
JUN , 1980											
05...	240	37	9.6	.4	33	--	364	.50	12.8	3.4	--
AUG											
14...	260	42	11	.3	39	--	405	.55	1.64	5.0	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

PLATTE RIVER BASIN--Continued

06784820 - TURKEY CREEK TRIBUTARY NR ST PAUL NE (LAT 41 10 55 LONG 098 29 39)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)
JUN , 1980												
05...	1040	1.8	585	7.7	23.5	270	0	75	21	13	.3	19
AUG												
14...	1110	1.2	601	8.1	21.0	260	0	78	17	13	.3	14

06785020 - UNNAMED CREEK AT ST PAUL NE (LAT 41 12 48 LONG 098 28 35)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)
OCT , 1979												
11...	1015	.44	660	8.3	13.0	320	0	91	23	16	.4	15
JUN , 1980												
05...	1010	2.5	482	7.9	24.0	220	0	57	18	10	.3	16
AUG												
14...	1030	1.5	208	7.0	19.5	71	1	20	5.1	3.9	.2	12

06784820 - TURKEY CREEK TRIBUTARY NR ST PAUL NE (LAT 41 10 55 LONG 098 29 39)

DATE	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)
JUN , 1980											
05...	280	23	10	.3	28	--	361	.49	1.75	.69	--
AUG											
14...	280	18	8.9	.4	37	--	358	.49	1.16	.67	--

06785020 - UNNAMED CREEK AT ST PAUL NE (LAT 41 12 48 LONG 098 28 35)

DATE	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)
OCT , 1979											
11...	330	44	5.2	.4	22	420	415	.57	.50	.03	.120
JUN , 1980											
05...	220	25	7.0	.3	25	--	294	.40	1.98	.78	--
AUG											
14...	70	7.1	3.5	.3	13	--	114	.16	.46	1.6	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPERATURE, WATER (DEG C) (00010)	COLOR (PLATINUM COBALT UNITS) (00080)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)
PLATTE RIVER BASIN--Continued									
06788495 - DANE C AT ORD, NEBR. (LAT 41 36 31 LONG 098 56 36)									
APR , 1980 28...	1350	.36	826	7.6	15.0	15	370	0	110
SEP 25...	1605	10	173	7.8	16.5	15	66	0	21
06788990 - MIRA C AT NORTH LOUP, NEBR. (LAT 41 29 54 LONG 098 46 46)									
APR , 1980 28...	0945	13	239	7.4	13.5	20	97	0	30
SEP 02...	1405	1.0	423	7.2	21.0	15	180	0	52

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)
06788495 - DANE C AT ORD, NEBR. (LAT 41 36 31 LONG 098 56 36)									
APR , 1980 28...	22	28	.6	21	390	50	13	.3	41
SEP 25...	3.3	6.1	.3	5.9	82	4.7	1.0	.4	52
06788990 - MIRA C AT NORTH LOUP, NEBR. (LAT 41 29 54 LONG 098 46 46)									
APR , 1980 28...	5.4	9.2	.4	7.5	110	8.4	1.6	.4	51
SEP 02...	11	17	.6	13	200	14	3.3	.4	52

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
06788495 - DANE C AT ORD, NEBR. (LAT 41 36 31 LONG 098 56 36)								
APR , 1980 28...	523	.71	.51	.57	1.400	90	90	480
SEP 25...	144	.20	4.24	.14	.070	80	30	10
06788990 - MIRA C AT NORTH LOUP, NEBR. (LAT 41 29 54 LONG 098 46 46)								
APR , 1980 28...	182	.25	6.83	.41	.200	30	70	80
SEP 02...	290	.39	.81	1.4	.330	70	<10	290

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

PLATTE RIVER BASIN--Continued

06790245 - AUGER CREEK AT ELBA NE (LAT 41 17 38 LONG 098 34 26)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)
OCT , 1979												
11...	0920	.35	652	7.7	11.0	330	6	96	21	17	.4	11
JUN , 1980												
05...	0915	1.4	605	7.6	22.5	250	0	71	17	14	.4	13
AUG												
14...	0915	.14	483	7.3	18.0	200	40	62	11	13	.4	10

06790255 - UNNAMED CREEK SOUTH OF ELBA NE (LAT 41 16 22 LONG 098 33 24)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)
OCT , 1979												
11...	0945	.43	521	8.0	13.0	270	0	73	21	9.8	.3	9.1
JUN , 1980												
05...	0940	.16	510	7.7	24.0	260	0	68	21	9.5	.3	6.3
AUG												
14...	1005	.25	386	7.8	19.0	180	0	48	14	7.3	.2	8.8

06790245 - AUGER CREEK AT ELBA NE (LAT 41 17 38 LONG 098 34 26)

DATE	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)
OCT , 1979											
11...	320	33	8.1	.3	40	428	422	.58	.40	.68	.170
JUN , 1980											
05...	250	31	7.7	.3	34	--	345	.47	1.30	1.4	--
AUG											
14...	160	65	15	.2	31	--	307	.42	.12	.85	--

06790255 - UNNAMED CREEK SOUTH OF ELBA NE (LAT 41 16 22 LONG 098 33 24)

DATE	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)
OCT , 1979											
11...	280	12	3.5	.3	38	330	335	.45	.39	.01	.030
JUN , 1980											
05...	270	3.8	1.5	.2	41	--	316	.43	.14	.45	--
AUG											
14...	190	3.8	3.4	.3	25	--	225	.31	.15	.00	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	COLOR (PLAT-INUM COBALT UNITS) (00080)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)
PLATTE RIVER BASIN--Continued										
06801330 - SALT CREEK NEAR ROCA, NEBR. (LAT 40 38 41 LONG 096 41 11)										
NOV , 1979										
17...	1450	6.0	1130	8.1	5.5	20	15	10.8	2.0	210
FEB , 1980										
20...	0930	8.1	1230	7.9	.0	5	5	14.1	3.1	K680
MAY										
14...	0900	8.6	1050	8.2	12.0	10	20	8.4	2.5	K2170
AUG										
12...	0910	1.0	1040	7.9	23.0	--	35	4.7	6.9	K1300
06803190 - SALT CREEK AT 14TH STREET, AT LINCOLN, NEBR. (LAT 40 50 03 LONG 096 42 03)										
NOV , 1979										
14...	1045	41	7000	7.9	3.0	10	15	10.1	3.3	220
FEB , 1980										
20...	1205	40	7200	7.9	1.0	--	8	13.9	4.0	83
MAY										
13...	1245	44	7000	8.2	16.5	10	10	14.4	3.5	970
AUG										
12...	1100	30	9200	7.8	25.0	--	20	8.7	4.8	K21000
06803493 - OAK CREEK AT 14TH STREET, AT LINCOLN, NEBR. (LAT 40 50 10 LONG 096 42 03)										
NOV , 1979										
14...	1115	12	3950	8.0	1.5	5	10	12.4	2.1	K310
FEB , 1980										
20...	1115	34	4180	7.8	.0	--	5	14.2	4.1	90
MAY										
13...	1200	26	4800	8.3	14.0	10	15	16.4	3.2	K160
AUG										
12...	1135	56	1800	7.5	23.0	--	600	5.2	8.9	K24000

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
06801330 - SALT CREEK NEAR ROCA, NEBR. (LAT 40 38 41 LONG 096 41 11)										
NOV , 1979										
17...	K4000	320	65	97	28	120	2.9	8.2	260	160
FEB , 1980										
20...	300	350	79	100	24	130	3.0	4.8	270	130
MAY										
14...	1720	340	70	100	22	88	2.1	5.3	270	110
AUG										
12...	1200	330	95	94	22	100	2.4	7.2	230	110
06803190 - SALT CREEK AT 14TH STREET, AT LINCOLN, NEBR. (LAT 40 50 03 LONG 096 42 03)										
NOV , 1979										
14...	300	390	100	100	34	1400	31	15	290	300
FEB , 1980										
20...	440	--	--	--	--	--	--	--	--	--
MAY										
13...	2800	400	110	100	36	1300	28	11	290	300
AUG										
12...	1800	--	--	--	--	--	--	--	--	--
06803493 - OAK CREEK AT 14TH STREET, AT LINCOLN, NEBR. (LAT 40 50 10 LONG 096 42 03)										
NOV , 1979										
14...	350	370	45	100	28	660	15	13	320	180
FEB , 1980										
20...	260	--	--	--	--	--	--	--	--	--
MAY										
13...	190	370	51	99	30	870	20	12	320	190
AUG										
12...	42000	--	--	--	--	--	--	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)
PLATTE RIVER BASIN--Continued									
06801330 - SALT CREEK NEAR ROCA, NEBR. (LAT 40 38 41 LONG 096 41 11)									
NOV , 1979 17...	150	.4	25	707	745	.96	11.5	1.4	1.5
FEB , 1980 20...	180	.4	29	736	766	1.00	16.3	1.1	1.1
MAY 14...	110	.3	13	623	615	.85	14.6	.85	.82
AUG 12...	150	.3	17	643	647	.87	1.74	--	1.9
06803190 - SALT CREEK AT 14TH STREET, AT LINCOLN, NEBR. (LAT 40 50 03 LONG 096 42 03)									
NOV , 1979 14...	1900	.5	24	3950	3950	5.37	437	1.4	1.4
FEB , 1980 20...	2100	--	--	3770	--	5.13	413	1.3	--
MAY 13...	1900	.5	15	3740	3840	5.09	450	.52	.52
AUG 12...	2800	--	--	5390	--	7.33	437	--	--
06803493 - OAK CREEK AT 14TH STREET, AT LINCOLN, NEBR. (LAT 40 50 10 LONG 096 42 03)									
NOV , 1979 14...	968	.4	23	2200	2160	2.99	71.3	1.6	1.6
FEB , 1980 20...	2600	--	--	2130	--	2.90	197	1.2	--
MAY 13...	1300	.4	14	2660	2710	3.62	192	.52	.52
AUG 12...	858	--	--	976	--	1.33	148	--	--

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
06801330 - SALT CREEK NEAR ROCA, NEBR. (LAT 40 38 41 LONG 096 41 11)									
NOV , 1979 17...	.150	.51	.66	2.1	.270	.230	750	40	180
FEB , 1980 20...	.080	1.5	1.6	2.7	.180	.140	200	20	590
MAY 14...	.090	1.1	1.2	2.1	.240	.160	160	<10	240
AUG 12...	--	--	--	--	--	.010	120	10	90
06803190 - SALT CREEK AT 14TH STREET, AT LINCOLN, NEBR. (LAT 40 50 03 LONG 096 42 03)									
NOV , 1979 14...	.630	1.9	2.5	3.9	.280	.210	480	20	40
FEB , 1980 20...	.400	.70	1.1	2.4	.200	--	--	--	--
MAY 13...	.180	1.1	1.3	1.8	.240	.130	440	20	340
AUG 12...	--	--	--	--	--	--	--	--	--
06803493 - OAK CREEK AT 14TH STREET, AT LINCOLN, NEBR. (LAT 40 50 10 LONG 096 42 03)									
NOV , 1979 14...	.580	.72	1.3	2.9	.240	.190	290	10	470
FEB , 1980 20...	.370	.55	.92	2.1	.140	--	--	--	--
MAY 13...	.190	2.6	2.8	3.3	.230	.130	360	20	420
AUG 12...	--	--	--	--	--	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

PLATTE RIVER BASIN--Continued

06805499 - MILL CREEK AT LOUISVILLE NEBR (LAT 41 00 13 LONG 096 09 35)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	COLOR (PLAT-INUM COBALT UNITS) (00080)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)
APR , 1980										
03...	1130	6.9	530	7.8	6.0	400	--	7.7	8.9	180000
JUL										
30...	1015	.44	505	8.0	23.0	30	--	6.6	6.0	K2330

06805525 - CEDAR CREEK NEAR LOUISVILLE NEBR (LAT 41 00 05 LONG 096 07 15)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	COLOR (PLAT-INUM COBALT UNITS) (00080)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)
APR , 1980										
03...	1215	22	414	7.8	6.5	160	--	10.4	19	54000
JUL										
30...	1035	1.0	454	8.2	26.0	35	--	7.8	4.6	500

06805565 - FOURMILE CREEK NEAR PLATTSMOUTH, NEBR. (LAT 41 01 02 LONG 095 57 46)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	COLOR (PLAT-INUM COBALT UNITS) (00080)	TUR-BID-ITY (JTU) (00070)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)
APR , 1980										
03...	1315	42	448	7.8	6.5	60	--	11.8	10	73000
JUL										
30...	1115	2.9	462	8.1	24.5	25	--	8.8	4.7	K2830

06805499 - MILL CREEK AT LOUISVILLE NEBR (LAT 41 00 13 LONG 096 09 35)

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
APR , 1980										
03...	--	180	0	52	13	36	1.2	41	200	41
JUL										
30...	--	200	0	56	15	29	.9	8.3	210	32

06805525 - CEDAR CREEK NEAR LOUISVILLE NEBR (LAT 41 00 05 LONG 096 07 15)

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
APR , 1980										
03...	--	160	0	44	12	23	.8	15	160	28
JUL										
30...	--	200	0	54	15	27	.8	4.7	220	25

06805565 - FOURMILE CREEK NEAR PLATTSMOUTH, NEBR. (LAT 41 01 02 LONG 095 57 46)

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
APR , 1980										
03...	--	210	18	57	16	18	.5	10	190	29
JUL										
30...	--	210	0	59	16	19	.6	3.1	220	20

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)
PLATTE RIVER BASIN--Continued									
06805499 - MILL CREEK AT LOUISVILLE NEBR (LAT 41 00 13 LONG 096 09 35)									
APR , 1980 03...	34	.3	11	366	366	.50	6.82	2.8	--
JUL 30...	20	.5	19	316	313	.43	.38	1.4	1.4
06805525 - CEDAR CREEK NEAR LOUISVILLE NEBR (LAT 41 00 05 LONG 096 07 15)									
APR , 1980 03...	15	.3	14	273	263	.37	16.2	3.4	3.4
JUL 30...	5.9	.4	14	297	291	.40	.85	2.9	2.9
06805565 - FOURMILE CREEK NEAR PLATTSMOUTH, NEBR. (LAT 41 01 02 LONG 095 57 46)									
APR , 1980 03...	8.9	.2	18	285	297	.39	32.3	5.7	5.6
JUL 30...	4.8	.4	23	303	297	.41	2.38	4.4	4.4

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
06805499 - MILL CREEK AT LOUISVILLE NEBR (LAT 41 00 13 LONG 096 09 35)									
APR , 1980 03...	4.200	32	36	39	6.300	1.200	170	750	380
JUL 30...	.000	1.4	1.4	2.8	.360	.330	50	20	320
06805525 - CEDAR CREEK NEAR LOUISVILLE NEBR (LAT 41 00 05 LONG 096 07 15)									
APR , 1980 03...	1.200	15	16	19	1.700	.600	80	350	390
JUL 30...	.000	1.4	1.4	4.3	--	.390	50	20	150
06805565 - FOURMILE CREEK NEAR PLATTSMOUTH, NEBR. (LAT 41 01 02 LONG 095 57 46)									
APR , 1980 03...	.960	10	11	17	1.300	.410	50	100	390
JUL 30...	.000	1.3	1.3	5.7	.280	.200	30	20	270

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE, WATER (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)
PLATTE RIVER BASIN--Continued									
06805499 - MILL CREEK AT LOUISVILLE NEBR (LAT 41 00 13 LONG 096 09 35)									
APR , 1980									
03...	1130	6.9	6.0	3620	67	81	81	--	100
06805525 - CEDAR CREEK NEAR LOUISVILLE NEBR (LAT 41 00 05 LONG 096 07 15)									
APR , 1980									
03...	1215	22	6.5	1510	90	42	80	90	100
06805565 - FOURMILE CREEK NEAR PLATTSMOUTH, NEBR. (LAT 41 01 02 LONG 095 57 46)									
APR , 1980									
03...	1315	42	6.5	1150	130	23	40	56	100

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	NUMBER OF SAM-PLING POINTS (00063)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)
06805499 - MILL CREEK AT LOUISVILLE NEBR (LAT 41 00 13 LONG 096 09 35)												
APR , 1980												
03...	1130	6.9	6	8	14	23	37	56	70	87	96	100
06805525 - CEDAR CREEK NEAR LOUISVILLE NEBR (LAT 41 00 05 LONG 096 07 15)												
APR , 1980												
03...	1215	22	5	0	38	39	47	54	62	78	92	100

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

WEEPING WATER CREEK BASIN

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	COLOR (PLAT-INUM COBALT UNITS) (00080)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
06806460 - WEEPING WATER CR AT WEEPING WATER, NEBR. (LAT 40 51 18 LONG 096 07 10)												
APR , 1980												
03...	1000	200	497	7.9	6.0	50	11.0	9.8	41000	220	8	61
JUL												
30...	1230	1.7	608	8.8	28.5	30	12.9	11	370	240	0	65
06806495 - S BR WEEPING WATER CREEK NEAR UNION NEBR (LAT 40 48 45 LONG 095 56 43)												
APR , 1980												
03...	1415	152	395	7.8	5.0	60	10.4	7.2	6700	170	14	50
JUL												
29...	1545	3.7	380	8.4	30.0	15	12.7	3.4	K100	180	0	51
06806501 - WEEPING WATER C NR UNION, NEBR. (LAT 40 47 46 LONG 095 54 17)												
APR , 1980												
03...	1215	266	433	7.9	5.5	30	10.6	8.8	12000	200	25	55
JUL												
29...	1520	9.4	440	8.4	30.0	35	12.1	5.0	K210	210	7	58

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)
06806460 - WEEPING WATER CR AT WEEPING WATER, NEBR. (LAT 40 51 18 LONG 096 07 10)												
APR , 1980												
03...	16	32	.9	11	210	59	9.9	.3	14	325	344	.44
JUL												
30...	18	50	1.4	7.2	260	93	11	.5	15	426	417	.58
06806495 - S BR WEEPING WATER CREEK NEAR UNION NEBR (LAT 40 48 45 LONG 095 56 43)												
APR , 1980												
03...	12	19	.6	7.0	160	30	6.5	.3	15	239	253	.33
JUL												
29...	12	18	.6	3.7	200	18	5.0	.4	20	261	258	.36
06806501 - WEEPING WATER C NR UNION, NEBR. (LAT 40 47 46 LONG 095 54 17)												
APR , 1980												
03...	14	19	.6	8.0	170	38	7.6	.3	14	251	275	.34
JUL												
29...	15	18	.5	4.2	200	31	7.8	.4	15	296	280	.40

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
WEEPING WATER CREEK BASIN--Continued												
06806460 - WEEPING WATER CR AT WEEPING WATER, NEBR. (LAT 40 51 18 LONG 096 07 10)												
APR , 1980												
03...	175	3.4	3.3	.85	9.0	9.8	13	1.400	.640	70	120	220
JUL												
30...	2.00	.22	.21	.00	3.2	3.2	3.4	.940	.720	260	20	180
06806495 - S BR WEEPING WATER CREEK NEAR UNION NEBR (LAT 40 48 45 LONG 095 56 43)												
APR , 1980												
03...	98.1	3.8	3.8	.59	11	12	16	1.800	.170	40	140	480
JUL												
29...	2.61	2.0	2.0	.00	3.4	3.4	5.4	.300	.230	40	<10	220
06806501 - WEEPING WATER C NR UNION, NEBR. (LAT 40 47 46 LONG 095 54 17)												
APR , 1980												
03...	180	3.8	3.8	.63	11	12	16	1.300	.370	60	70	200
JUL												
29...	7.51	2.3	2.2	.00	1.6	1.6	3.9	.320	.140	30	<10	240

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	NUMBER OF SAM- PLING POINTS (00063)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)
06806460 - WEEPING WATER CR AT WEEPING WATER, NEBR. (LAT 40 51 18 LONG 096 07 10)												
APR , 1980												
03...	1000	200	1	--	--	0	9	79	96	100	--	--
06806495 - S BR WEEPING WATER CREEK NEAR UNION NEBR (LAT 40 48 45 LONG 095 56 43)												
APR , 1980												
03...	1415	152	3	0	64	73	93	97	98	98	99	100
06806501 - WEEPING WATER C NR UNION, NEBR. (LAT 40 47 46 LONG 095 54 17)												
APR , 1980												
03...	1215	266	3	36	46	57	64	64	75	89	94	100

WATER QUALITY DATA, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE, WATER (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)
WEEPING WATER CREEK BASIN--Continued											
06806460 - WEEPING WATER CR AT WEEPING WATER, NEBR. (LAT 40 51 18 LONG 096 07 10)											
APR , 1980											
03...	1000	200	6.0	764	413	--	--	--	97	98	100
06806495 - S BR WEEPING WATER CREEK NEAR UNION NEBR (LAT 40 48 45 LONG 095 56 43)											
APR , 1980											
03...	1415	152	5.0	4110	1690	42	42	76	99	100	--
06806501 - WEEPING WATER C NR UNION, NEBR. (LAT 40 47 46 LONG 095 54 17)											
APR , 1980											
03...	1215	266	5.5	2940	2110	21	36	51	97	100	--

GROUND-WATER LEVELS

ADAMS COUNTY

403403098244001. Local number 7N-10W-23AB.

LOCATION.--Lat 40°34'03", long 98°24'40", NW1/4NE1/4 sec.23, T.7 N., R.10 W., Hydrologic Unit 10270206, 0.5 mi (0.8 km) west of the west junction of Routes 281 and 6, in the south part of Hastings. Owner: Henry Fricke.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled unused irrigation water-table well, diameter 8 in (0.20 m), depth 155 ft (47.2 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,927 ft (587 m). Measuring point: Top of casing 1.0 ft (0.30 m) above land-surface datum.

REMARKS.--Large amounts of ground water are pumped from municipal and industrial wells located east and northeast of the well and from irrigation wells in other directions.

PERIOD OF RECORD.--August 1934 to October 1938; August 1948 to December 1950; and January 1951 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 99.95 ft (30.46 m) below land-surface datum, Jan. 22, 1935; lowest, 126.14 ft (38.45 m) below land-surface datum, July 30, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	119.51	119.11	118.54	117.98	117.79	117.71	117.36	117.40	117.34	118.40	123.37	121.50
10	119.41	118.96	118.40	118.00	117.72	117.69	117.30	117.71	117.47	122.93	125.58	121.17
15	119.42	118.82	118.45	117.75	117.78	117.49	117.35	117.43	117.49	123.80	121.92	120.90
20	119.36	118.80	118.32	117.80	117.66	117.59	118.11	117.37	117.45	123.93	121.52	120.92
25	119.10	118.63	119.21	117.86	117.82	117.46	117.38	117.35	117.83	123.72	124.44	120.75
EOM	119.12	118.55	119.18	117.85	117.77	117.46	117.36	117.35	121.78	125.10	121.90	120.65

WTR YEAR 1980 MAX 117.10 APR 20, 1980 MIN 126.14 JUL 30, 1980

BLAINE COUNTY

414958100061501. Local number 22N-24W-33CA.

LOCATION.--Lat 41°49'58", long 100°06'15", NE1/4SW1/4 sec.33, T.22 N., R.24 W., Hydrologic Unit 10210001, approximately 500 ft (152 m) west of junction of State Highways 91 and 2 north of Dunning. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits, undifferentiated, of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1 in (0.03 m), depth 13 ft (4.0 m), screened 11 to 13 ft (3.4 to 4.0 m).

DATUM.--Altitude of land-surface datum is 2,618 ft (798 m). Measuring point: Top of casing 1.40 ft (0.43 m) above land-surface datum.

PERIOD OF RECORD.--December 1934 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.04 ft (0.32 m) below land-surface datum, Mar. 8, 1950; lowest, 6.97 ft (2.12 m) below land-surface datum, Aug. 8, 1951.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16	4.79	JAN 2	3.34	MAR 3	2.95	MAY 5	3.18	JUN 16	4.04	AUG 21	3.82
NOV 19	3.69	JAN 21	3.37	MAR 24	3.18	MAY 27	3.46	JUL 28	5.08	SEP 11	4.28
DEC 11	3.22	FEB 11	3.57	APR 14	2.42						

BOONE COUNTY

413323098074501. Local number 18N-7W-4CA.

LOCATION.--Lat 41°33'23", long 98°07'45", NE1/4SW1/4 sec.4, T.18 N., R.7 W., Hydrologic Unit 10210010, at junction of State Highways 52 and 56 approximately 1 mi (1.6 km) east of Cedar Rapids. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1 in (0.03 m), depth 22 ft (6.7 m), screened 20 to 22 ft (6.1 to 6.7 m).

DATUM.--Altitude of land-surface datum is 1,762 ft (537 m). Measuring point: Top of casing 2.90 ft (0.88 m) above land-surface datum.

PERIOD OF RECORD.--November 1936 to October 1942; April 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.57 ft (2.61 m) below land-surface datum, May 4, 1973; lowest, 15.17 ft (4.62 m) below land-surface datum, Oct. 26, 1940.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 3	11.56	MAY 7	10.92								

BOX BUTTE COUNTY

420945102551501. Local number 25N-48W-4DDD.

LOCATION.--Lat 42°09'45", long 102°55'15", SE1/4SE1/4SE1/4 sec.4, T.25 N., R.48 W., Hydrologic Unit 10150003, approximately 3.6 miles (5.8 km) south and 2.8 mi (4.5 km) east of Berea. Owner: U.S. Geological Survey.

AQUIFER.--Marsland Formation of Miocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.25 in (0.03 m), depth 204 ft (62.2 m), screened 190 to 193 ft (57.9 to 58.8 m).

DATUM.--Altitude of land-surface datum is 4,032.95 ft (1,229.24 m). Measuring point: Top of pipe 2.00 ft (0.61 m) above land-surface datum.

REMARKS.--Water levels in vicinity of well are affected by large withdrawals of ground water for irrigation use.

PERIOD OF RECORD.--April 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 63.14 ft (19.25 m) below land-surface datum, Jan. 25, 1950; lowest, 94.97 ft (28.95 m) below land-surface datum, Oct. 21, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 8	94.43	MAR 27	93.50								

BROWN COUNTY

423307099494501. Local number 30N-21W-19CC.

LOCATION.--Lat 42°33'07", long 99°49'45", SW1/4SW1/4 sec.19, T.30 N., R.21 W., Hydrologic Unit 10150004, 1.2 mi (1.9 km) east of junction of U.S. Highway 20 and Route 7 in Ainsworth. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 52 ft (15.8 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,511.44 ft (765.49 m). Measuring point: Top of casing 0.20 ft (0.06 m) above land-surface datum.

REMARKS.--Water levels in well are affected by pumpage of ground water for irrigation and seepage losses from nearby irrigation project.

PERIOD OF RECORD.--November 1947 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 33.63 ft (10.25 m) below land-surface datum, Jan. 10, 1980; lowest, 40.96 ft (12.48 m) below land-surface datum, Sept. 7, 1965.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	34.22	33.93	33.81	33.76	33.89	33.96	34.02	34.12	34.18	34.38	35.20	35.43
10	34.12	33.86	33.77	33.83	33.87	33.99	34.05	34.19	34.18	34.49	35.38	35.48
15	34.07	33.83	33.82	33.83	33.92	33.92	34.06	34.24	34.20	34.68	35.38	35.39
20	34.04	33.87	33.72	33.89	33.85	34.00	34.07	34.23	34.13	34.85	35.46	35.28
25	33.98	33.79	33.76	33.88	33.99	34.00	34.10	34.22	34.13	34.97	35.48	35.21
EOM	33.93	33.80	33.76	33.91	34.02	34.00	34.10	34.27	34.31	35.10	35.43	35.11

WTR YEAR 1980 MAX 33.63 JAN 10, 1980 MIN 35.49 SEP 9, 1980

BUFFALO COUNTY

404618098504401. Local number 9N-14W-1DC.

LOCATION.--Lat 40°46'18", long 98°50'44", SW1/4SE1/4 sec.1, T.9 N., R.14 W., Hydrologic Unit 10200102, 1.3 mi (2.1 km) north of the intersection of Route 30 and the North-South range-line road on the east side of Gibbon, then 0.5 mi (0.8 km) west on section-line road. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 38 ft (11.6 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,060.43 ft (628.02 m). Measuring point: Top of casing 0.80 ft (0.24 m) above land-surface datum.

REMARKS.--Water levels in well are affected by pumpage from nearby irrigation wells.

PERIOD OF RECORD.--July 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.36 ft (4.68 m) below land-surface datum, June 11, 1952; lowest, 29.22 ft (8.91 m) below land-surface datum, Aug. 10, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	26.02	25.58	25.29	25.08	24.90	24.78	24.46	24.19	23.91	25.36	28.77	28.40
10	25.92	25.50	25.24	25.07	24.87	24.74	24.38	24.16	23.89	26.24	29.22	28.18
15	25.83	25.45	25.25	25.01	24.86	24.66	24.35	24.07	23.88	26.67	28.85	28.00
20	25.73	25.43	25.17	25.03	24.82	24.63	24.31	24.08	23.83	27.40	28.47	27.79
25	25.68	25.36	25.17	25.00	24.85	24.57	24.27	24.01	23.88	27.97	28.91	27.64
ECM	25.60	25.33	25.11	24.96	24.83	24.50	24.22	23.98	24.88	28.40	28.76	27.50

WTR YEAR 1980 MAX 23.78 JUN 22, 1980 MIN 29.22 AUG 10, 1980

BUFFALO COUNTY

404345098560001. Local number 9N-14W-19DD.

LOCATION.--Lat 40°43'45", long 98°56'00", SE1/4SE1/4 sec.19, T.9 N., R.14 W., Hydrologic Unit 10200102, 4.7 mi (7.6 km) west-southwest of Gibbon on U.S. Highway 30. Owner: Robert D. Lewis.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 24 in (0.61 m), depth 54 ft (16.5 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,102.16 ft (640.74 m). Measuring point: Hole in pump base 0.70 ft (0.21 m) above land-surface datum.

REMARKS.--Water levels in well are affected by pumping of well and of nearby wells for irrigation supplies.

PERIOD OF RECORD.--October 1930 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.55 ft (6.87 m) below land-surface datum, June 9, 1931; lowest, 35.20 ft (10.73 m) below land-surface datum, Aug. 30, 1974.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11	33.25	MAY 15	30.90								

BUTLER COUNTY

411420097173002. Local number 15N-1E-27DD2.

LOCATION.--Lat 41°14'20", long 97°17'30", SE1/4SE1/4 sec.27, T.15 N., R.1 E., Hydrologic Unit 10270201, 2 mi (3.2 km) north of the northeast corner of Rising City. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 5 in (0.13 m), depth 210.0 ft (64.01 m), perforated 199 to 210 ft (60.7 to 64.0 m).

DATUM.--Altitude of land-surface datum is 1,618 ft (493 m). Measuring point: Top of platform, at land-surface datum.

REMARKS.--Replacement for 411420097173001, local number 15N-1E-27DD, period of record June 1958 to January 1977. Water levels in well affected by pumping from nearby wells during irrigation season.

PERIOD OF RECORD.--February 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 104.24 ft (31.77 m) below land-surface datum, Apr. 7, 1980; lowest, 174.50 ft (53.19 m) below land-surface datum, Aug. 3, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	112.27	.....	.....	.....	105.01	.....	104.37	104.50	104.25	.....	.....	135.40
10	111.21	.....	106.08	105.26H	104.94	104.61	104.32	109.49	104.62	.....	.....	131.63
15	110.15	107.18	105.99	105.26	104.94	104.56	104.32	109.49	104.27	.....	.....	127.69
20	109.25	107.00	.....	105.42	104.93	104.57	104.34	107.25	104.27	.....	.....	123.99
25	108.89	106.78	.....	.....	.....	104.54	104.41	106.20	.....	.....	.....	121.18
ECM	107.84	106.90	.....	.....	.....	104.35	104.42	105.35	.....	.....	.....	118.64

WTR YEAR 1980 MAX 104.24 APR 7, 1980 MIN 171.54 AUG 6, 1980

H TAPE MEASUREMENT

CHASE COUNTY

403220101384001. Local number 7N-38W-28CC.

LOCATION.--Lat 40°32'20", long 101°38'40", SW1/4SW1/4 sec.28, T.7 N., R.38 W., Hydrologic Unit 10250005, about 0.5 mi (0.8 km) north of Imperial. Owner: Roy Hust.

AQUIFER.--Ogallala Formation of Pliocene age.

WELL CHARACTERISTICS.--Drilled unused observation water-table well, diameter 18 in (0.46 m), depth 143 ft (43.6 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 3,284.6 ft (1,001.1 m). Measuring point: Top of casing 0.30 ft (0.09 m) above land-surface datum.

REMARKS.--Recording gage was installed on this well from December 1948 to December 1963. Water levels in well are affected by irrigation pumpage in area.

PERIOD OF RECORD.--December 1944; December 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 72.82 ft (22.20 m) below land-surface datum, June 29, 1964; lowest measured, 106.90 ft (32.58 m) below land-surface datum, Oct. 6, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	106.90B										

B WELL PUMPED RECENTLY

CHASE COUNTY

403235101395501. Local number 7N-38W-29CBB.

LOCATION.--Lat 40°32'35", long 101°39'55", NW1/4NW1/4SW1/4 sec.29, T.2 N., R.38 W., Hydrologic Unit 10250005, 0.5 mi (0.8 km) north and 1 mi (1.6 km) west of Imperial on U.S. Highway 6, then 0.5 mi (0.8 km) north on gravel road. Owner: U.S. Geological Survey.

AQUIFER.--Ogallala Formation of Pliocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 5.50 in (0.14 m), depth 230 ft (70.1 m), perforated 190 to 230 ft (57.9 to 70.1 m).

DATUM.--Altitude of land-surface datum is 3,290.30 ft (1,002.88 m). Measuring point: Top of casing 0.50 ft (0.15 m) above land-surface datum.

REMARKS.--Water levels in well are affected by irrigation pumpage in area.

PERIOD OF RECORD.--June 1964 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 55.87 ft (17.03 m) below land-surface datum, July 4, 1964; lowest, 93.05 ft (28.36 m) below land-surface datum, Aug. 25, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	89.76	87.85	85.95	84.52	83.40	82.56	81.54	80.76	80.28	85.67	92.00M	91.10
10	89.34	87.42	85.65	84.46	83.08	82.29	81.30	80.81	80.27	87.26	92.57	91.14
15	89.05	87.08	85.63	84.13	83.11	82.00	81.30	80.65	80.36	88.76	92.83	90.81
20	88.79	86.89	85.17	84.07	82.80	82.12	81.05	80.54	80.15	89.89	92.05	90.53
25	88.46	86.46	85.00	83.87	82.90	81.83	81.03	80.50	80.30	90.46	93.05	90.25
EOM	88.00	86.15	84.71	83.70	82.84	81.62	80.95	80.49	84.10	91.53	91.49	89.90

WTR YEAR 1980 MAX 79.88 JUN 23, 1980 MIN 93.05 AUG 25, 1980

M TAPE MEASUREMENT

CHERRY COUNTY

423205100321501. Local number 30N-28W-36AAA.

LOCATION.--Lat 42°32'05", long 100°32'15", NE1/4NE1/4NE1/4 sec.36, T.30 N., R.28 W., Hydrologic Unit 10150004, 8 mi (12.9 km) south of the intersection of U.S. Highway 83 and State Highway 483, south of Valentine. Owner: U.S. Geological Survey.

AQUIFER.--Sand deposits of Pleistocene age.

WELL CHARACTERISTICS.--Bored observation water-table well, diameter 1.25 in (0.03 m), depth 12 ft (3.7 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,897.26 ft (883.08 m). Measuring point: Top of casing 3.00 ft (0.91 m) above land-surface datum.

REMARKS.--Water levels affected by evapotranspiration.

PERIOD OF RECORD.--October 1961 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, +0.20 ft (+0.06 m) above land-surface datum, Jan. 11, 1936; lowest, 1.99 ft (0.61 m) below land-surface datum, Oct. 4, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 9	1.28	FEB 6	0.10	AUG 11	1.80						

CLAY COUNTY

402940098154001. Local number 6N-8W-17BB.

LOCATION.--Lat 40°29'40", long 98°15'40", NW1/4NW1/4 sec.17, T.6 N., R.8 W., Hydrologic Unit 10270206, 0.7 mi (1.1 km) south of Glenville. Owner: Willard W. Kissinger.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in (0.46 m), depth 151 ft (46.0 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,846 ft (563 m). Measuring point: Hole in turbine base at land-surface datum.

REMARKS.--Water levels affected by pumping during irrigation season.

PERIOD OF RECORD.--October 1952; June 1954 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 95.53 ft (29.12 m) below land-surface datum, June 24, 1954; lowest, 108.30 ft (33.01 m) below land-surface datum, Oct. 20, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19	108.00	MAR 18	105.66								

COLFAX COUNTY

412810097054501. Local number 17N-3E-4CC.

LOCATION.--Lat 41°28'10", long 97°05'45", SW1/4SW1/4 sec.4, T.17 N., R.3 E., Hydrologic Unit 10200201, 2 mi west (3.2 km) and 1 mi (1.6 km) north of intersection of U.S. Highway 30 and State Highway 15 in Schuyler. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Driven observation water-table well, diameter 1.25 in (0.03 m), depth 16 ft (4.9 m), screened 14 to 16 ft (4.3 to 4.9 m).

DATUM.--Altitude of land-surface datum is 1,370.58 ft (417.75 m). Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

PERIOD OF RECORD.--September 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.15 ft (1.26 m) below land-surface datum, Apr. 1, 1952; lowest, 10.37 ft (3.16 m) below land-surface datum, Oct. 28, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 1	9.99										

DAWES COUNTY

424100103243501. Local number 31N-52W-3DC.

LOCATION.--Lat 42°41'00", long 103°24'35", SW1/4SE1/4 sec.3, T.31 N., R.52 W., Hydrologic Unit 10140201, behind house at 312 Annin Street in Crawford. Owner: T. P. Moody.

AQUIFER.--Sand and gravel deposits, undifferentiated, of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 39 ft (11.9 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 3,685 ft (1,123 m). Measuring point: Edge of iron plate 1.07 ft (0.33 m) above land-surface datum.

PERIOD OF RECORD.--August 1934 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.87 ft (4.84 m) below land-surface datum, May 30, 1948; lowest, 22.28 ft (6.79 m) below land-surface datum, Oct. 31, 1956.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16	20.40	NOV 20	19.95	JAN 21	19.67	FEB 27	19.45	APR 17	18.94	APR 17	18.94
OCT 23	20.30	DEC 20	19.74								

DAWSON COUNTY

405250099445501. Local number 10N-21W-18DDD.

LOCATION.--Lat 40°52'50", long 99°44'55", SE1/4SE1/4SE1/4 sec.18, T.10 N., R.21 W., Hydrologic Unit 10200101, 3.5 mi (5.6 km) north of the intersection of Route 21 and U.S. Highway 30 in Lexington. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 120 ft (36.6 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,420.58 ft (737.79 m). Measuring point: Top of casing 0.50 ft (0.15 m) above land-surface datum.

REMARKS.--Water levels in well affected by pumpage from nearby irrigation wells and by seepage from irrigation canals.

PERIOD OF RECORD.--July 1964 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.74 ft (2.97 m) below land-surface datum, Oct. 24, 1965; lowest, 17.90 ft (5.46 m) below land-surface datum, Aug. 20, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	13.59	.....	.....	14.41	14.59	14.38	14.38	14.10	13.80	16.11	16.71	15.72
10	13.63	.....	.....	14.43	.....	14.39	14.22	14.16	13.73	16.55	17.37	15.74
15	13.76	.....	.....	14.48	.....	14.36	14.15	14.22	13.82	16.91	17.51	15.71
20	13.85	14.12	.....	14.52	.....	14.42	14.08	14.21	13.87	16.19	16.70	15.87
25	.....	.....	.....	14.54	.....	14.43	14.07	14.18	14.28	16.87	16.21	15.97
EOM	.....	.....	.....	14.56	14.41	14.44	14.08	14.03	15.38	16.53	15.94	15.96

WTR YEAR 1980 MAX 13.46 OCT 2, 1979 MIN 17.64 AUG 14, 1980

DAWSON COUNTY

404850099503501. Local number 10N-22W-29AA.

LOCATION.--Lat 40°48'50", long 99°50'35", NE1/4NE1/4 sec.29, T.10 N., R.22 W., Hydrologic Unit 10200101, 2 mi (3.2 km) east of Dorr. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1 in (0.03 m), depth 12 ft (3.7 m), screened 10 to 12 ft (3.0 to 3.7 m).

DATUM.--Altitude of land-surface datum is 2,435.14 ft (742.23 m). Measuring point: Top of casing 1.80 ft (0.55 m) above land-surface datum.

REMARKS.--Water levels in well affected by pumping from nearby wells during irrigation season.

PERIOD OF RECORD.--October 1931 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.1 ft (1.55 m) below land-surface datum, Oct. 13, 1965; lowest, 17.69 ft (5.39 m) below land-surface datum, Feb. 8, 1946.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 4	6.61										

DUNDY COUNTY

400155101521302. Local number 1N-40W-29BB2.

LOCATION.--Lat 40°01'55", long 101°52'13", NW1/4NW1/4 sec.29, T.1 N., R.40 W., Hydrologic Unit 10250002, 3.5 mi (5.6 km) east of Haigler on U.S. Highway 34 and 0.5 mi (0.8 km) north. Well is within 0.5 mi (0.8 km) of Republican River. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits, undifferentiated, of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 48.8 ft (14.87 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 3,205 ft (977 m). Measuring point: South side of casing 1.6 ft (0.49 m) above land-surface datum.

REMARKS.--Replacement for well 400155101521301, local number 1N-40W-29BB1 with period of record from May 1946 to June 1975. Water levels in well are affected by pumping from nearby irrigation wells, evapotranspiration, and changes in stage of Republican River.

PERIOD OF RECORD.--October 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 16.45 ft (5.01 m) below land-surface datum, June 25, 1975; lowest, 20.97 ft (6.39 m) below land-surface datum, Sept. 12, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	19.69	19.03	18.44	18.10	.....	17.57	.....	16.98	17.25	17.76	18.70	19.05
10	19.44	18.90	18.38	18.04	.....	17.52	17.27	16.94	17.45	18.06	.....	19.21
15	19.76	18.81	18.33	17.99	17.71	17.48	17.17	16.91	17.66	18.30	19.20	18.93
20	19.59	18.71	18.26	17.96	17.66	17.46	17.10	16.87	17.57	18.40	19.26	18.80
25	19.34	18.62	18.21	17.90	17.64	17.42	17.03	16.84	17.50	18.60	19.44	18.71
EOM	19.16	18.56	18.15	.....	17.61	17.38	.....	16.97	17.81	18.70	19.29	19.11

WTR YEAR 1980 MAX 16.79 MAY 29, 1980 MIN 19.80 OCT 18, 1979

FILLMORE COUNTY

402504097432201. Local number 5N-4W-12BDC.

LOCATION.--Lat 40°25'04", long 97°43'22", SW1/4SE1/4NW1//4 sec.12, T.5 N., R.4 W., Hydrologic Unit 10270206, one-half block south of fire station on principal north-south street in Shickley. Owner: U.S. Geological Survey.

AQUIFER.—Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 5 in (0.13 m), depth 260.0 ft (79.25 m), perforated 100 to 260 ft (30.5 to 79.25 m).

DATUM.--Altitude of land-surface datum is 1651 ft (503 m). Measuring point: Top of casing 1.5 ft (0.46 m) above land-surface datum.

REMARKS.--Replacement for 402458097443401, local number 5N-4W-12BC, period of record October 1956 to September 1977. Water levels in well affected by pumping from nearby municipal and irrigation wells.

PERIOD OF RECORD.--June 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 90.92 ft (27.71 m) below land-surface datum, Apr. 17, 1978; lowest, 96.91 ft (29.54 m) below land-surface datum, Sept. 5, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	95.44	95.27	94.70	94.50	94.20	94.09	93.58	93.45	93.04	94.37	96.40	96.78
10	95.23	95.00	94.60	94.46	94.07	94.01	93.52	93.55	93.31	94.31	96.50	96.73H
15	95.27	95.00	94.81	94.36	94.17	93.71	93.52	93.41	93.29	95.10	96.62	96.61
20	95.30	94.98	94.61	94.41	94.01	93.88	93.52	93.38	93.57	95.61	96.85	96.77
25	95.17	94.85	94.58	94.47	94.25	93.73	93.55	93.28	93.89	95.85	96.79	96.74
EOM	95.23	94.17	94.54	94.37	94.13	93.71	93.50	93.39	94.16	96.21	96.67	96.56

WTR YEAR 1980 MAX 92.90 JUN 14, 1980 MIN 96.91 SEP 5, 1980

H TAPE MEASUREMENT

FILLMORE COUNTY

403800097300701. Local number 8N-2W-26AD.

LOCATION.--Lat 40°38'00", long 97°30'07", SE1/4NE1/4 sec.26, T.8 N., R.2 W., Hydrologic Unit 10270203, 2.5 mi (4.0 km) west on Route 6 from the principal street of Exeter, then 0.4 mi (0.6 km) south. Owner: U.S. Geological Survey.

AQUIFER.—Loess of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 40 ft (12.2 m), perforated 25 to 40 ft (7.6 to 12.2 m).

DATUM.--Altitude of land-surface datum is 1,610 ft (491 m). Measuring point: Top of casing at land-surface datum.

REMARKS.--Perched aquifer, water levels affected by infiltration and deep percolation of applied irrigation water pumped from deeper aquifer.

PERIOD OF RECORD.--October 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.98 ft (0.60 m) below land-surface datum, Apr. 3, 1980; lowest, 24.16 ft (7.36 m) below land-surface datum, July 10, 1958.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	9.71	8.92	8.77	9.23	9.23	8.27	3.90	6.10	5.89	7.57	9.20	9.88
10	9.93	8.93	8.85	9.21	9.20	7.55	4.76	6.30	6.31	7.77	9.44	10.10
15	9.96	9.01	9.04	9.27	9.40	6.78	5.19	6.46	6.70	8.04	9.65	10.20
20	10.02	9.12	8.99	9.26	9.25	7.60	5.43	6.46	6.93	8.36	9.26	10.31
25	10.20	8.74	9.12	9.18	7.82	7.77	5.68	6.61	7.14	8.61	9.50	10.58
EOM	8.36	8.85	9.14	9.28	7.94	4.99	5.89	6.95	7.40	8.93	9.64	10.65

WTR YEAR 1980 MAX 1.98 APR 3, 1980 MIN 10.65 SEP 19, 1980

FURNAS COUNTY

401718099491001. Local number 4N-22W-29AD.

LOCATION.--Lat 40°17'18", long 99°49'10", SE1/4NE1/4 sec.29, T.4 N., R.22 W., Hydrologic Unit 10250009, 2 mi (3.2 km) west and 0.5 mi (0.8 km) north of Edison. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.25 in (0.03 m), depth 23 ft (7.0 m), screened 21 to 23 ft (6.4 to 7.0 m).

DATUM.--Altitude of land-surface datum is 2,134 ft (650 m). Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

PERIOD OF RECORD.--February 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.60 ft (1.40 m) below land surface datum, Aug. 22, 1978; lowest, 17.69 ft (5.39 m) below land-surface datum, Feb. 8, 1946.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16	9.20	DEC 3	9.50								

GARDEN COUNTY

414413102244501. Local number 20N-44W-5DB.

LOCATION.--Lat 41°44'13", long 102°24'45", NW1/4SE1/4 sec.5, T.20 N., R.44 W., Hydrologic Unit 10180009, 2.6 mi (4.2 km) southeast of Rumper. Owner: Crescent Lake Migratory Bird Refuge.

AQUIFER.--Sand deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.50 in (0.04 m), depth 20 ft (6.1 m), screened 18 to 20 ft (5.5 to 6.1 m).

DATUM.--Altitude of land-surface datum is 3,798.19 ft (1,157.69 m). Measuring point: Top of casing 2.50 ft (0.76 m) above land-surface datum.

PERIOD OF RECORD.--August 1934 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.54 ft (1.38 m) below land-surface datum, Oct. 14, 1934; lowest, 8.70 ft (2.65 m) below land-surface datum, Apr. 11, 1941.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 13	7.42G										

G MEASUREMENT MADE BY ANOTHER AGENCY

GARFIELD COUNTY

414718099083201. Local number 21N-16W-14CB.

LOCATION.--Lat 41°47'18", long 99°08'32", NW1/4SW1/4 sec.14, T.21 N., R.16 W., Hydrologic Unit 10210007, 5 mi (8.0 km) east and 1 mi (1.6 km) north of Burwell. Owner: Frank Smolik.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in (0.46 m), depth 154 ft (46.9 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,174 ft (663 m). Measuring point: Hole in turbine base 2.00 ft (0.61 m) above land-surface datum.

REMARKS.--Water levels affected by pumping during irrigation season.

PERIOD OF RECORD.--October 1950 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.62 ft (6.59 m) below land-surface datum, Oct. 16, 1973; lowest, 24.92 ft (7.60 m) below land-surface datum, Oct. 28, 1959.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15	23.89										

GOSPER COUNTY

403626099451401. Local number 7N-21W-6BC.

LOCATION.--Lat 40°36'26", long 99°45'14", SW1/4NW1/4 sec.2, T.7 N., R.21 W., Hydrologic Unit 10200101, 1 mi (1.6 km) west and 2 mi (3.2 km) north of Smithfield. Owner: Andy Larson Estate.

AQUIFER.--Ogallala Formation of Pliocene age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 4 in (0.10 m), depth 132 ft (40.2 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,466.95 ft (751.93 m). Measuring point: Top of casing 0.40 ft (0.12 m) above land-surface datum.

REMARKS.--Water levels in well affected by pumping from nearby irrigation wells and by infiltration and deep percolation from nearby irrigation canal.

PERIOD OF RECORD.--September 1934 to July 1940; January 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 54.80 ft (16.70 m) below land-surface datum, Oct. 5, 1979; lowest, 117.80 ft (39.91 m) below land-surface datum, Sept. 26, 1935.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 5	54.80										

HALL COUNTY

405315098304302. Local number 11N-11W-25CC2.

LOCATION.--Lat 40°53'15", long 98°30'43", SW1/4SW1/4 sec.25, T.11 N., R.11 W., Hydrologic Unit 10200103, 1.0 mi (1.6 km) north and 2.0 mi (3.2 km) west of Alda. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 65 ft (19.8 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,924.0 ft (586.4 m). Measuring point: Top of casing 2.00 ft (0.61 m) above land-surface datum.

REMARKS.--Replacement for 405315098304301, local number 11N-11W-25CC, period of record October 1946 to November 1977. Water levels in wells affected by pumping from nearby wells during irrigation season.

PERIOD OF RECORD.-- April 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 21.66 ft (6.60 m) below land-surface datum, June 25, 1978; lowest, 24.92 ft (7.60 m) below land-surface datum, Sept. 12, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	23.75	23.56	23.42	23.33	-----	23.12	22.94	22.82	-----	22.85	24.26	24.84
10	23.70	23.52	23.41	23.30	-----	23.11	22.90	-----	-----	22.99	24.51	24.90
15	23.67	23.49	23.41	23.28	23.19	23.08	22.89	-----	-----	23.19	24.72	24.92
20	23.64	23.49	23.40	23.25	23.18	23.02	22.88	-----	-----	23.44	24.78	24.89
25	23.61	23.47	23.39	23.23	23.16	23.00	22.86	-----	22.55	23.66	24.78	24.86
EOM	23.57	23.45	23.36	23.22	23.13	22.97	22.85	-----	22.56	24.00	24.75	24.82

WTR YEAR 1980 MAX 22.53 JUN 22, 1980 MIN 24.92 SEP 12, 1980

HAMILTON COUNTY

404825097583301. Local number 10N-6W-26BC.

LOCATION.--Lat 40°48'25", long 97°58'33", SW1/4NW1/4 sec.26, T.10 N., R.6 W., Hydrologic Unit 10270203, 4 mi (6.4 km) south of junction of Route 14 and U.S. Highway 34 in Aurora, then 1.0 mi (1.6 km) east and 0.3 mi (0.48 km) south. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 131 ft (39.9 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,790.5 ft (545.7 m). Measuring point: Top of casing 1.50 ft (0.46 m) above land-surface datum.

REMARKS.--Water levels affected by pumping at nearby irrigation wells.

PERIOD OF RECORD.--March 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 84.90 ft (25.88 m) below land-surface datum, June 20, 1956; lowest, 106.97 ft (32.60 m) below land-surface datum, Sept. 8, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	104.13	103.30	102.63	102.15	101.67	101.27	-----	100.56	100.27	100.36	105.74	106.33
10	103.97	103.20	102.51	102.00	101.59	101.20	-----	100.52	100.25	101.29	106.46	106.20
15	103.83	103.13	102.46	101.95	101.52	101.14	100.79	100.48	100.17	102.74	106.58	106.10
20	103.71	103.02	102.37	101.90	101.44	101.08	100.73	100.45	100.15	103.60	106.56	105.95
25	103.62	102.92	102.40	101.81	101.38	-----	100.67	100.38	100.10	104.19	106.43	105.85
EOM	103.41	102.79	102.20	101.74	101.34	-----	100.62	100.32	100.10	104.90	106.35	105.70

WTR YEAR 1980 MAX 100.09 JUN 29, 1980 MIN 106.58 AUG 15, 1980

HAMILTON COUNTY

405514097573901. Local number 11N-6W-13CB.

LOCATION.--Lat 40°55'14", long 97°57'39", NW1/4SW1/4 sec.13, T.11 N., R.6 W., Hydrologic Unit 10270201, 2 mi (3.2 km) east and 3.5 mi (5.6 km) north of Aurora. Owner: O. S. Swedberg.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 24 in (0.61 m), depth 194 ft (59.1 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,812.2 ft (552.4 m). Measuring point: Hole in south side turbine base at land-surface datum.

REMARKS.--Water levels affected by pumping during irrigation season.

PERIOD OF RECORD.--September 1934 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 90.04 ft (27.44 m) below land-surface datum, Sept. 29, 1934; lowest, 117.18 ft (35.72 m) below land-surface datum, Nov. 15, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 13	107.41	APR 30	105.43								

HARLAN COUNTY

400920099215501. Local number 2N-18W-9BCC.

LOCATION.--Lat 40°09'20", long 99°21'55", SW1/4SW1/4NW1/4 sec.9, T.2 N., R.18 W., Hydrologic Unit 10250009, 3.5 mi (5.6 km) north of the junction of Route 3 and U.S. Highway 183 in Alma. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 5.50 in (0.14 m), depth 170 ft (51.8 m), perforated from 140 to 170 ft (42.7 to 51.8 m).

DATUM.--Altitude of land-surface datum is 2,120 ft (646 m). Measuring point: Top of casing 0.50 ft (0.15 m) above land-surface datum.

REMARKS.--Water levels affected by pumping from nearby wells during irrigation season.

PERIOD OF RECORD.--June 1964 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 84.39 ft (25.72 m) below land-surface datum, May 11, 1966; lowest, 109.96 ft (33.52 m) below land-surface datum, Sept. 15, 1974.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	91.60	91.33	90.80	90.62	90.43	90.37	90.01	90.79	89.65	100.77	105.36	97.06
10	91.60	91.14	90.75	90.47	90.30	90.27	89.95	89.95	90.22	104.06	106.32	99.05
15	91.38	91.03	90.79	90.56	90.42	90.16	89.95	90.16	90.99	104.68	102.63	95.68
20	91.32	91.09	90.73	90.66	90.28	90.17	89.90	89.83	91.25	103.93	103.79	93.46
25	91.31	90.92	90.76	90.55	90.45	90.10	-----	89.72	90.38	105.18	101.56	93.41
EOM	91.27	90.92	90.63	90.56	90.43	90.00	-----	89.80	96.78	105.54	97.85	93.19

WTR YEAR 1980 MAX 89.65 JUN 6, 1980 MIN 106.65 AUG 8, 1980

HARLAN COUNTY

400620099274001. Local number 2N-19W-28DD.

LOCATION.--Lat 40°06'20", long 99°27'40", SE1/4SE1/4 sec.28, T.2 N., R.19 W., Hydrologic Unit 10250009, 1.8 mi (2.9 km) south of Orleans. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1 in (0.03 m), depth 22 ft (6.7 m), screened 20 to 22 ft (6.1 to 6.7 m).

DATUM.--Altitude of land-surface datum is 1,960 ft (597 m). Measuring point: Top of casing 1.20 ft (0.37 m) above land-surface datum.

PERIOD OF RECORD.--May 1940 to October 1941; March 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.9 ft (1.80 m) below land-surface datum, Feb. 15, 1966; lowest, 12.50 ft (3.81 m) below land-surface datum, Aug. 5, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAR 14	10.20	AUG 5	12.50								

HITCHCOCK COUNTY

401458100542201. Local number 3N-32W-11BB.

LOCATION.--Lat 40°14'58", long 100°54'22", NW1/4NW1/4 sec.11, T.3 N., R.32 W., Hydrologic Unit 10250005, 3 mi (4.8 km) west and 1 mi (1.6 km) north of Culbertson. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits, undifferentiated, of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.25 in (0.03 m), depth 18 ft (5.5 m), screened 16 to 18 ft (4.9 to 5.5 m).

DATUM.--Altitude of land-surface datum is 2,615 ft (797 m). Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

REMARKS.--Water levels in well affected by pumping of nearby irrigation wells and seepage from irrigation canals.

PERIOD OF RECORD.--May 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.65 ft (3.86 m) below land-surface datum, Feb. 8, 1949; lowest, 17.30 ft (5.27 m) below land-surface datum, Aug. 10, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	15.72										

HOLT COUNTY

421605098203001. Local number 27N-9W-34DA.

LOCATION.--Lat 42°16'05", long 98°20'30", NE1/4SE1/4 sec.34, T.27 N., R.9 W., Hydrologic Unit 10220001, 0.5 mi (0.8 km) north of Ewing. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1 in (0.03 m), depth 17 ft (5.2 m), screened 15 to 17 ft (4.6 to 5.2 m).

DATUM.--Altitude of land-surface datum is 1,841 ft (561 m). Measuring point: Top of casing 1.10 ft (0.34 m) above land-surface datum.

PERIOD OF RECORD.--December 1934 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.67 ft (0.81 m) below land-surface datum, Apr. 5, 1960; lowest, 9.90 ft (3.02 m) below land-surface datum, Sept. 1, 1948.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	7.96	APR 9	4.85	APR 24	6.80	JUL 22	8.45	AUG 11	8.52	SEP 2	8.29
JAN 21	6.93										

HOLT COUNTY

422845098370701. Local number 29N-11W-21BBB.

LOCATION.--Lat 42°28'45", long 98°37'07", NW1/4NW1/4NW1/4 sec.21, T.29 N., R.11 W., Hydrologic Unit 10150007, 1 mi (1.6 km) east and 1 mi (1.6 km) north of O'Neill. Owner: Murphy.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled stock water-table well, diameter 5 in (0.13 m), depth 55 ft (16.8 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,001.06 ft (609.92 m). Measuring point: Top of casing 1.20 ft (0.37 m) above land-surface datum.

REMARKS.--Water levels in well affected by pumping of nearby wells during irrigation season.

PERIOD OF RECORD.--November 1947 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.87 ft (5.14 m) below land-surface datum, Jan. 14, 1948; lowest, 34.64 ft (10.56 m) below land-surface datum, Oct. 14, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	27.85	MAY 6	27.14								

HOLT COUNTY

423148098300601. Local number 30N-10W-32DAA.

LOCATION.--Lat 42°31'48", long 98°30'06", NE1/4NE1/4SE1/4 sec.32, T.30 N., R.10 W., Hydrologic Unit 10150007, 2 mi (3.2 km) east on paved road from O'Neill, then 2 mi (3.2 km) north, 4 mi (6.4 km) east, 2 mi (3.2 km) north, 2 mi (3.2 km) east, and 0.5 mi (0.8 km) north. Owner: William J. Murphy.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 85 ft (25.9 m), perforated 25.5 to 85 ft (7.8 to 25.9 m).

DATUM.--Altitude of land-surface datum is 1,952 ft (595 m). Measuring point: Top of casing 1.08 ft (0.30 m) above land-surface datum.

REMARKS.--Water levels in this well affected by withdrawals by nearby irrigation wells completed in this aquifer and withdrawals from a deeper aquifer which has resulted in water movement from the upper aquifer to the deeper aquifer.

PERIOD OF RECORD.--October 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 35.41 ft (10.79 m) below land-surface datum, Oct. 21, 1966; lowest, 51.69 ft (15.76 m) below land-surface datum, Sept. 29, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	50.51	50.57	50.48	50.40	.....	.....	49.95	49.84	49.86	50.23	50.99	51.51
10	50.53	50.57	50.47	.....	.....	.....	49.93	49.82	49.88	50.32	51.10	51.56
15	50.55	50.55	50.46	.....	.....	.....	49.92	49.85	49.90	50.46	51.18	51.62
20	50.56	50.53	50.44	.....	50.18H	.....	49.92	49.88	49.90	50.59	51.27	51.64
25	50.56	50.51	50.42	.....	.....	.....	49.88	49.88	50.00	50.72	51.37	51.67
EOM	50.56	50.50	50.42	.....	.....	.....	49.86	49.88	50.11	50.87	51.46	51.69

WTR YEAR 1980 MAX 49.81 JUN 9, 1980 MIN 51.69 SEP 29, 1980

H TAPE MEASUREMENT

HOLT COUNTY

423730098560001. Local number 31N-14W-27BBB.

LOCATION.--Lat 42°37'30", long 98°56'00", SE1/4SE1/4SE1/4 sec.27, T.31 N., R.14 W., Hydrologic Unit 10150007, 6 mi (9.7 km) north from Atkinson on Route 11, then 2 mi (3.2 km) east. Owner: Elmer Goldfuss.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 72 ft (21.9 m), perforated 32 to 72 ft (9.8 to 21.9 m).

DATUM.--Altitude of land-surface datum is 2,080 ft (634 m). Measuring point: Top of casing at land-surface datum.

REMARKS.--Water levels in well affected by pumping of nearby wells during irrigation season.

PERIOD OF RECORD.--July 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 30.91 ft (9.42 m) below land-surface datum, July 7, 1966; lowest, 43.30 ft (13.20 m) below land-surface datum, Sept. 10, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	37.35	36.85	36.52	36.29	35.94	35.58	35.25	35.17	35.34	36.34	39.04	40.10
10	37.22	36.76	36.49	36.25	35.87	35.52	35.19	35.14	35.35	36.78	39.41	40.17
15	37.14	36.70	36.49	36.19	35.83	35.45	35.16	35.36	35.44	37.24	39.71	40.23
20	37.03	36.69	36.42	36.20	35.73	35.41	35.13	35.37	35.49	37.72	39.86	40.11
25	36.99	36.60	36.40	36.10	35.72	35.36	35.09	35.29	35.71	38.18	40.11	40.01
EOM	36.88	36.59	36.34	36.03	35.66	35.28	35.10	35.42	..02	38.67	40.17	39.89

WTR YEAR 1980 MAX 35.08 MAY 10, 1980 MIN 40.23 SEP 15, 1980

KEARNEY COUNTY

403053098581501. Local number 6N-15W-1CB.

LOCATION.--Lat 40°30'53", long 98°58'15", NW1/4SW1/4 sec.1, T.6 N., R.15 W., Hydrologic Unit 10270206, 1 mi (1.6 km) west and 1 mi (1.6 km) north of intersection of U.S. Highway 6 and State Highway 10 in Minden. Owner: Roy Youngson.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in (0.46 m), depth 176 ft (53.6 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,171.80 ft (661.96 m). Measuring point: Hole in turbine base 1.00 ft (0.30 m) above land-surface datum.

PERIOD OF RECORD.--June 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 45.50 ft (13.87 m) below land-surface datum, Oct. 21, 1975; lowest, 71.36 ft (21.75 m) below land-surface datum, June 29, 1948.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 9	48.35										

KEARNEY COUNTY

402625098594501. Local number 6N-15W-34DC.

LOCATION.--Lat 40°26'25", long 98°59'45", SW1/4SE1/4 sec.34, T.6 N., R.15 W., Hydrologic Unit 10270206, 4.5 mi (7.2 km) south and 2.5 mi (4.0 km) west of the junction of Route 10 and U.S. Highway 34 near Minden. Owner: Conservation and Survey Division, University of Nebraska-Lincoln.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 210 ft (64.0 m), cased with steel, perforated 190 to 210 ft (57.9 to 64.0 m).

DATUM.--Altitude of land-surface datum is 2,210 ft (674 m). Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

REMARKS.--Replacement for 402615099000001, local number 5N-15W-3BA1, period of record August 1947 to September 1967. Water levels in well affected by seepage losses from nearby canals and by pumping of nearby wells during irrigation season.

PERIOD OF RECORD.--October 1968 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 79.29 ft (24.17 m) below land-surface datum, May 29, 1976; lowest, 119.43 ft (39.40 m) below land-surface datum, Aug. 27, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	84.55	83.74	82.53	82.23	.....	81.80	81.21	80.95	80.29	.....	.....	94.58
10	84.54	83.35	82.65	82.06	.....	81.83	81.00	80.81	80.43	.....	.....	90.18
15	84.04	83.30	.....	82.00	81.77	81.65	80.90	81.28	80.37	.....	99.81	88.37
20	83.69	83.22	.....	82.40	81.27	81.38	80.86	80.62	80.29	.....	89.97	87.63
25	83.98	.....	.....	81.94	81.89	81.31	80.81	80.58	81.13	.....	114.30	87.49
EOM	83.47	.....	.....	82.13	82.04	81.13	80.96	80.50	106.00	.....	109.53	86.89

WTR YEAR 1980 MAX 80.11 JUN 2, 1980 MIN 119.43 AUG 27, 1980

KIMBALL COUNTY

411416103361101. Local number 15N-55W-26CC.

LOCATION.--Lat 41°14'16", long 103°36'11", SW1/4SW1/4 sec.26, T.15 N., R.55 W., Hydrologic Unit 10190016, east of intersection of U.S. Highway 30 and State Highway 71 in Kimball. Owner: Henry Meier.

AQUIFER.--Ogallala Formation of Pliocene age.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 24 in (0.61 m), depth 124 ft (37.8 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 4,652.3 ft (1,418.0 m). Measuring point: Top of casing 0.00 ft (0.00 m) above land-surface datum.

REMARKS.--Replacement for 411600103393501, local number 15N-55W-17CC1, period of record January 1935 to November 1942; June 1950 to October 1975.

PERIOD OF RECORD.--January 1936 to October 1937; January 1951 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 39.82 ft (12.14 m) below land-surface datum, Jan. 2, 1936; lowest, 54.07 ft (16.48 m) below land-surface datum, Oct. 18, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 9	51.38	MAR 21	49.96								

LANCASTER COUNTY

403929096401001. Local number 8N-7E-18DDB.

LOCATION.--Lat 40°39'29", long 96°40'10", NW1/4SE1/4SE1/4 sec.18, T.8 N., R.7 E., Hydrologic Unit 10200203, 0.6 mi (0.97 km) west of Roca. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits, undifferentiated, of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 41 ft (12.5 m), perforated 36 to 41 ft (11.0 to 12.5 m).

DATUM.--Altitude of land-surface datum is 1,215 ft (370 m). Measuring point: Top of casing 2.00 ft (0.61 m) above land-surface datum.

PERIOD OF RECORD.--June 1954 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.63 ft (0.50 m) below land-surface datum, Aug. 25, 1954; lowest, 12.55 ft (3.83 m) below land-surface datum, June 20, 1956.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17	3.39										

LANCASTER COUNTY

403833096385501. Local number 8N-7E-20DDA.

LOCATION.--Lat 40°38'33", long 96°38'55", NE1/4SE1/4SE1/4 sec.20, T.8 N., R.7 E., Hydrologic Unit 10200203, 0.5 mi (0.8 km) east and 1.1 mi (1.8 km) south of Roca. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits, undifferentiated, of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 33 ft (10.1 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,243 ft (379 m). Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

PERIOD OF RECORD.--June 1954 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.16 ft (0.05 m) below land-surface datum, Mar. 27, 1960; lowest, 12.28 ft (3.74 m) below land-surface datum, Oct. 17, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17	12.28										

LANCASTER COUNTY

404730096440401. Local number 10N-6E-34CA.

LOCATION.--Lat 40°47'30", long 96°44'04", NE1/4SW1/4 sec.34, T.10 N., R.6 E., Hydrologic Unit 10200203, 0.3 mi (0.5 km) west of intersection of Folsom and South Streets in Lincoln. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 36 ft (11.0 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,149 ft (350 m). Measuring point: Top of casing 2.00 ft (0.61 m) above land-surface datum.

PERIOD OF RECORD.--December 1951 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.20 ft (2.80 m) below land-surface datum, Oct. 15, 1973; lowest, 18.53 ft (5.65 m) below land-surface datum, Feb. 20, 1957.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25	14.08										

LANCASTER COUNTY

404706096413001. Local number 10N-6E-36CDD.

LOCATION.--Lat 40°47'06", long 96°41'30", SE1/4SE1/4SW1/4 sec.36, T.10 N., R.6 E., Hydrologic Unit 10200203, in Irvingdale Park on the north side of Van Dorn Street between 19th and 20th Streets in Lincoln. Owner: City of Lincoln.

AQUIFER.--Dakota Formation of Lower Cretaceous age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 16 in (0.41 m), depth 170 ft (51.8 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,200 ft (366 m). Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

REMARKS.--Water levels in well have had a rising trend for the period of record due partly to recovery from long-term withdrawals from the aquifer for the Lincoln water supply prior to 1950 and partly to recharge from precipitation.

PERIOD OF RECORD.--August 1951 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 50.32 ft (15.34 m) below land-surface datum, June 2, 1980; lowest 71.19 ft (21.70 m) below land-surface datum, Sept. 5, 1956.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	51.26	.....	51.02	.....	.....	50.92	.....	50.53	.....	50.62	50.69	50.84
10	51.40	.....	51.00	50.80	.....	50.87	50.75	50.65	.....	50.52	50.68	50.93
15	51.27	.....	51.22	50.88	.....	50.87	50.68	.....	50.60	50.54	50.72	50.81
20	51.38	.....	51.02	51.09	.....	50.89	50.60	.....	50.62	50.62	50.57	50.70
25	.....	.....	51.10	.....	.....	.....	50.61	.....	50.49	50.65	50.67	50.98
EOM	.....	.....	.....	.....	.....	50.60	50.55	.....	50.57	50.68	50.67	50.77

WTR YEAR 1980 MAX 50.32 JUN 2, 1980 MIN 51.40 OCT 10, 1979

MERRICK COUNTY

410143098090301. Local number 12N-7W-7AA.

LOCATION.--Lat 41°01'43", long 98°09'03", NE1/4NE1/4 sec.7, T.12 N., R.7 W., Hydrologic Unit 10200103, 0.5 mi (0.8 km) north and 0.5 mi (0.8 km) west of Chapman. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.25 in (0.03 m), depth 13 ft (4.0 m), screened 11 to 13 ft (3.4 to 4.0 m).

DATUM.--Altitude of land-surface datum is 1,762.16 ft (537.11 m). Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

REMARKS.--Water levels in well affected by pumping of nearby wells during irrigation season and by evapotranspiration.

PERIOD OF RECORD.--December 1945 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.84 ft (1.17 m) below land-surface datum, Feb. 14, 1974; lowest, 10.75 ft (3.28 m) below land-surface datum, Dec. 3, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15	8.18	MAY 12	6.35								

MERRICK COUNTY

405755098111301. Local number 12N-8W-36BC.

LOCATION.--Lat 40°57'55", long 98°11'13", SW1/4NW1/4 sec.36, T.12 N., R.8 W., Hydrologic Unit 10200103, 2 mi (3.2 km) southwest of the intersection of the main street in Chapman and U.S. Highway 30, then 2.6 mi (4.2 km) south. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Jetted observation water-table well, diameter 6 in (0.15 m), depth 7.75 ft (2.36 m), perforated 5 to 8 ft (1.5 to 2.4 m).

DATUM.--Altitude of land-surface datum is 1,785.38 ft (544.18 m). Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

REMARKS.--Water levels in well affected by evapotranspiration.

PERIOD OF RECORD.--July 1958 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.02 ft (0.31 m) below land-surface datum, June 13, 1967; lowest, 6.21 ft (1.89 m) below land-surface datum, Aug. 31, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	5.38	3.92	3.95	4.03	3.84	3.43	2.95	4.43	2.39	4.86	5.76	5.64
10	5.37	4.04	4.02	4.33	3.78	3.09	3.42	4.59	3.47	5.01	5.78	5.71
15	5.37	4.17	4.22	4.11	3.85	3.25	3.61	4.65	4.01	5.23	5.61	5.72
20	5.33	4.25	4.32	3.64	3.73	3.52	3.71	3.75	4.34	5.43	5.35	5.75
25	5.21	3.62	4.12	3.50	3.82	3.70	4.04	4.24	4.35	5.64	5.51	5.76
EOM	4.18	3.94	3.97	3.85	3.58	3.01	4.25	4.63	.....	5.70	5.48	5.74

WTR YEAR 1980 MAX 1.56 JUN 4, 1980 MIN 5.78 AUG 11, 1980

MORRILL COUNTY

414107103054501. Local number 20N-50W-28BB.

LOCATION.--Lat 41°41'07", long 103°05'45", NW1/4NW1/4 sec.28, T.20 N., R.50 W., Hydrologic Unit 10180009, 0.1 mi (0.2 km) west of Northport. Owner: Fred Smith.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 1.25 in (0.03 m), depth 35 ft (10.7 m), screened 33 to 35 ft (10.1 to 10.7 m).

DATUM.--Altitude of land-surface datum is 3,675 ft (1,120 m). Measuring point: Top of casing 2.80 ft (0.85 m) above land-surface datum.

PERIOD OF RECORD.--September 1934 to November 1942; November 1944 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.87 ft (3.62 m) below land-surface datum, Sept. 7, 1951; lowest, 17.33 ft (5.28 m) below land-surface datum, Oct. 26, 1954.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23	13.53	MAR 17	14.04								

NUCKOLLS COUNTY

400240098111301. Local number 1N-8W-23AB.

LOCATION.--Lat 40°02'40", long 98°11'13", NW1/4NE1/4 sec.23, T.1 N., R.8 W., Hydrologic Unit 10250016, 0.5 mi (0.8 km) south and 0.5 mi (0.8 km) west of Bostwick. Owner: U.S. Geological Survey.

AQUIFER.--Loess of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 18 ft (5.5 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,598.15 ft (487.12 m). Measuring point: Top of casing 1.50 ft (0.46 m) above land-surface datum.

PERIOD OF RECORD.--April 1950 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.02 ft (0.01 m) below land-surface datum, July 29, 1951; lowest, 7.85 ft (2.39 m) below land-surface datum, Apr. 30, 1950.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 4	5.90	MAY 5	4.85								

PHELPS COUNTY

403123099261501. Local number 6N-19W-2AA.

LOCATION.--Lat 40°31'23", long 99°26'15", NE1/4NE1/4 sec.2, T.6 N., R.19 W., Hydrologic Unit 10200101, 10 mi (16.1 km) east of Bertrand. Owner: Central Nebraska Public Power and Irrigation District.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1 in (0.03 m), depth 151 ft (46.0 m), screened 149 to 151 ft (45.4 to 46.0 m).

DATUM.--Altitude of land-surface datum is 2,360.81 ft (719.57 m). Measuring point: Top of casing 1.00 ft (0.30 m) above land-surface datum.

REMARKS.--Water levels in well affected by seepage losses from nearby irrigation canal.

PERIOD OF RECORD.--March 1945 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 48.80 ft (14.87 m) below land-surface datum, Oct. 21, 1975, Oct. 5, 1979; lowest, 123.70 ft (37.70 m) below land-surface datum, Mar. 9, 1945.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 5	48.80	JAN 21	49.02								

PLATTE COUNTY

412955097192001. Local number 18N-1E-28CD.

LOCATION.--Lat 41°29'55", long 97°19'20", SE1/4SE1/4 sec.28, T.18 N., R.1 E., Hydrologic Unit 10200201, 3 mi (4.8 km) south and 8.5 mi (13.7 km) east of Platte Center. Owner: Loup River Public Power District.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 2 in (0.05 m), depth 99 ft (30.2 m), screened 97 to 99 ft (29.6 to 30.2 m).

DATUM.--Altitude of land-surface datum is 1,511.8 ft (460.8 m). Measuring point: Top of casing 0.50 ft (0.15 m) above land-surface datum.

PERIOD OF RECORD.--November 1935 to August 1940; March 1942 to November 1953; November 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 60.30 ft (18.38 m) below land-surface datum, Mar. 27, 1940; lowest, 72.81 ft (22.19 m) below land-surface datum, Oct. 9, 1958.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 10	69.28										

RED WILLOW COUNTY

401015100353701. Local number 2N-29W-4AD.

LOCATION.--Lat 40°10'15", long 100°35'37", SE1/4NE1/4 sec.4, T.2 N., R.29 W., Hydrologic Unit 10250004, 2 mi (3.2 km) south and 1.5 mi (2.4 km) east of intersection of U.S. Highway 6 and 83 in east part of McCook. Owner: Rex S. Haberman.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 26 in (0.66 m), depth 40 ft (12.2 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 2,481 ft (756 m). Measuring point: Top of casing 3.00 ft (0.91 m) above land-surface datum.

REMARKS.--Reported destroyed in October, 1978. No well reading was made in the 1980 water year.

PERIOD OF RECORD.--September 1950 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.6 ft (7.50 m) below land-surface datum, Oct. 9, 1965; lowest, 37.10 ft (11.31 m) below land-surface datum, July 11, 1953.

SALINE COUNTY

403855097072501. Local number 8N-3E-19ADA.

LOCATION.--Lat 40°38'55", long 97°07'25", NE1/4SE1/4NE1/4 sec.19, T.8 N., R.3 E., Hydrologic Unit 10270202, west edge of Dorchester, on west side of Route 15 between U.S. Highway and Route 33. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 5 in (0.13 m), depth 151 ft (46.0 m), perforated 142 to 151 ft (43.3 to 46.0 m).

DATUM.--Altitude of land-surface datum is 1,496 ft (456 m). Measuring point: Top of casing at land-surface datum.

REMARKS.--Water levels in well affected by pumping of nearby wells during irrigation season.

PERIOD OF RECORD.--October 1959 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 96.56 ft (29.43 m) below land-surface datum, Mar. 16, 1963; lowest, 107.15 ft (32.66 m) below land-surface datum, Aug. 25, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	103.65	103.42	102.74	102.82	102.58	102.62	102.34	102.03	101.75	102.61	105.72	105.22
10	103.87	103.41	102.86	102.62	102.27	102.55	102.16	101.79	101.80	102.50	105.96	105.24
15	103.38	103.20	103.00	102.65	102.70	102.35	102.12	102.14	101.75	103.04	105.80	104.94
20	103.20	103.47	102.83	103.15	102.23	102.42	102.02	101.96	101.85	103.92	105.50	104.64
25	103.60	103.13	103.16	102.85	102.97	102.40	102.12	101.73	101.70	104.45	105.25	104.93
ECM	103.09	103.30	102.15	102.93	102.86	102.28	102.08	102.03	102.42	105.25	105.00	104.54

WTR YEAR 1980 MAX 101.70 JUN 25, 1980 MIN 106.16 AUG 12, 1980

SAUNDERS COUNTY

410426096220401. Local number 13N-9E-24CC.

LOCATION.--Lat 41°04'26", long 96°22'04", SW1/4SW1/4 sec.24, T.13 N., R.9 E., Hydrologic Unit 10200202, 2 mi (3.2 km) north of Ashland. Owner: City of Lincoln.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.25 in (0.03 m), depth 12 ft (3.7 m), screened 10 to 12 ft (3.0 to 3.7 m).

DATUM.--Altitude of land-surface datum is 1,065.22 ft (324.68 m). Measuring point: Top of casing 4.50 ft (1.37 m) above land-surface datum.

REMARKS.--Water levels affected by pumping of nearby wells in City of Lincoln well field.

PERIOD OF RECORD.--October 1933 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.48 ft (0.15 m) below land-surface datum, July 31, 1948; lowest, 9.65 ft (2.94 m) below land-surface datum, Oct. 18, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 9	8.04	DEC 25	7.16	FEB 25	6.25	APR 25	5.45	JUN 25	5.90	AUG 25	8.25
OCT 25	8.00	JAN 25	6.68	MAR 25	5.76	MAY 28	6.10	JUL 25	7.26	SEP 25	6.30
NOV 25	7.50										

SAUNDERS COUNTY

411005096281502. Local number 14N-8E-24ACD2.

LOCATION.--Lat 41°10'05", long 96°28'15", SE1/4SW1/4NE1/4 sec.24, T.14 N., R.8 E., Hydrologic Unit 10200203, 4 mi (6.4 km) south from the intersection of Routes 92 and 692 near Mead, then 0.65 mi (1.05 km) east and 0.4 mi (0.64 km) south to the south end of load line 2 of the Mead Field Station. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 80 ft (24.4 m), screened 60 to 80 ft (18.3 to 24.4 m).

DATUM.--Altitude of land-surface datum is 1,171 ft (357 m). Measuring point: Top of casing 0.5 ft (0.15 m) above land-surface datum.

REMARKS.--Replacement for well 411005096281501, local number 14N-8E-24ACD1, with period of record July 1964 to November 1970. Water levels in well affected by pumping of nearby wells during irrigation season.

PERIOD OF RECORD.--April 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 42.47 ft (12.94 m) below land-surface datum, May 5, 1974; lowest, 46.48 ft (14.17 m) below land-surface datum, Sept. 16, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	45.72	45.72	45.65	.....	45.60	45.62	.....	.....	45.59	45.69	46.05	46.40
10	45.75	45.69	45.66	45.61	.....	45.61	.....	.....	45.63	45.75	46.06	46.42
15	45.72	45.72	45.70	45.62	.....	45.57	.....	.....	45.73	45.84	46.08	46.42
20	45.73	45.76	.....	45.66	.....	.....	.....	.....	45.70	45.84	46.11	46.45
25	45.76	45.69	.....	45.63	.....	.....	.....	.....	45.67	45.87	46.13	46.45
EOM	45.68	45.71	.....	45.65	.....	45.59H	45.57	.....	.....	45.92	46.15	46.44

WTR YEAR 1980 MAX 45.53 MAR 3, 1980 MIN 46.48 SEP 16, 1980

SCOTTS BLUFF COUNTY

415325103392801. Local number 22N-55W-11DDC.

LOCATION.--Lat 41°53'25", long 103°39'28", SW1/4NE1/4NE1/4 sec.11, T.22 N., R.55 W., Hydrologic Unit 10180009, 0.5 mi (0.8 km) north of the west intersection of Routes 71 and 26 in Scottsbluff, then 0.8 mi (1.3 km) east. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits, undifferentiated, of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 32 ft (9.8 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 3,953 ft (1,205 m). Measuring point: Top of casing 0.00 ft (0.00 m) above land-surface datum.

REMARKS.--Water levels in well affected by deep percolation of applied irrigation water and seepage losses of nearby irrigation canal and laterals.

PERIOD OF RECORD.--August 1962 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 23.05 ft (7.03 m) below land-surface datum, Sept. 25, 1974; lowest, 26.72 ft (8.14 m) below land-surface datum, May 31, 1979.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	25.13	25.28	25.44	25.58	.....	25.93	26.06	26.16	25.48	25.84	25.35	24.70
10	25.17	25.30	25.45	25.60	.....	25.95	26.09	26.20	25.87	25.87	25.40	24.85
15	25.22	25.34	25.48	25.62	25.85	25.82	26.10	26.21	26.09	25.95	25.38	24.87
20	25.24	25.36	25.50	25.60	25.87	25.96	26.11	26.24	26.21	25.87	24.91	24.94
25	25.27	25.38	25.52	25.63	25.85	25.99	26.13	26.25	26.30	25.75	24.87	24.63
EOM	25.27	25.42	25.57	25.66	25.88	26.03	26.15	26.10	26.35	25.53	24.57	24.64

WTR YEAR 1980 MAX 24.25 SEP 28, 1980 MIN 26.35 JUN 30, 1980

SCOTTS BLUFF COUNTY

420000103511501. Local number 23N-56W-6AA.

LOCATION.--Lat 42°00'00", long 103°51'15", NE1/4NE1/4 sec.6, T.23 N., R.56 W., Hydrologic Unit 10180009, 4 mi (6.4 km) north and 2 mi (3.2 km) west of intersection of U.S. Highway 26 and State Highway 29 in Mitchell. Owner: Carl Gompert.

AQUIFER.--Sand and gravel deposits, undifferentiated, of Quaternary age.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 6 in (0.15 m), depth 118 ft (36.0 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 4,087.7 ft (1,245.9 m). Measuring point: Hole in pump base 0.7 ft (0.21 m) above land-surface datum.

REMARKS.--Water levels affected by withdrawals during irrigation season.

PERIOD OF RECORD.--November 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.24 ft (8.91 m) below land-surface datum, Oct. 26, 1949; lowest, 41.04 ft (12.51 m) below land-surface datum, Oct. 6, 1961.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24	38.25	MAR 18	39.99								

SEWARD COUNTY

405406097115001. Local number 11N-2E-21DD.

LOCATION.--Lat 40°54'06", long 97°11'50", SE1/4SE1/4 sec.21, T.11 N., R.2 E., Hydrologic Unit 10270201, 4.5 mi (7.2 km) west of Seward. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 5 in (0.13 m), depth 123 ft (37.5 m), perforated 112 to 123 ft (34.1 to 37.5 m).

DATUM.--Altitude of land-surface datum is 1,550 ft (472 m). Measuring point: Top of casing 0.00 ft (0.00 m) above land-surface datum.

REMARKS.--Water levels in well affected by withdrawals from nearby irrigation wells.

PERIOD OF RECORD.--May 1958 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 76.37 ft (23.28 m) below land-surface datum, Dec. 20, 1965; lowest, 90.17 ft (27.48 m) below land-surface datum, Aug. 5, 1980.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	87.91	87.85	86.70	86.68	86.44	86.40	86.17	85.81	85.60	87.50	90.17	.....
10	88.10	87.50	86.86	86.12	.....	86.29	85.97	85.27	85.73	88.12	.....	.....
15	87.61	87.37	86.99	86.45	.....	.....	85.98	85.95	85.75	88.63	.....	.....
20	87.33	87.48	86.77	87.12	.....	.....	85.90	85.84	85.73	89.15	.....	.....
25	87.77	87.22	87.24	86.65	.....	86.21	85.85	85.57	85.76	89.52	.....	.....
EOM	87.37	87.30	86.73	86.87	.....	86.07	85.75	85.81	86.51	89.87	.....	.....

WTR YEAR 1980 MAX 85.27 MAY 10, 1980 MIN 90.17 AUG 5, 1980

SHERIDAN COUNTY

420341102171701. Local number 24N-43W-15AC.

LOCATION.--Lat 42°03'41", long 102°17'17", SW1/4NE1/4 sec.15, T.24 N., R.43 W., Hydrologic Unit 10150003, near intersection of State Highways 2 and 27 in Ellsworth. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 0.75 in (0.02 m), depth 16.8 ft (5.1 m), perforated 16.0 to 16.8 ft (4.9 to 5.1 m).

DATUM.--Altitude of land-surface datum is 3,912 ft (1,192 m). Measuring point: Top of pipe 3.00 ft (0.91 m) above land-surface datum.

PERIOD OF RECORD.--September 1958 to October 1977.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.85 ft (2.39 m) below land-surface datum, Apr. 11, 1980; lowest, 10.85 ft (3.31 m) below land-surface datum, Oct. 20, 1972.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26	9.19	APR 11	7.85								

SHERIDAN COUNTY

423034102415001. Local number 29N-46W-10AA.

LOCATION.--Lat 42°30'34", long 102°41'50", NE1/4NE1/4 sec.10, T.29 N., R.46 W., Hydrologic Unit 10150003, at Mirage Flats project headquarters, 11.5 mi (18.5 km) south of Hay Springs. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 100 ft (30.5 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 3,794.5 ft (1,156.6 m). Measuring point: Top of casing 1.5 ft (0.46 m) above land-surface datum.

REMARKS.--Water levels affected by seepage losses from nearby irrigation canal and laterals and by withdrawals from nearby irrigation wells.

PERIOD OF RECORD.--September 1953 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 32.47 ft (9.90 m) below land-surface datum, Aug. 25, 1969; lowest, 38.95 ft (11.87 m) below land-surface datum, May 29, 1954.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	36.44	36.52	36.59	36.54	36.68	36.62	36.66	36.68	36.87	37.30	37.96	37.95
10	36.40	36.51	36.60	36.47	36.69	36.65	36.70	36.61	36.90	37.56	38.15	37.87
15	36.49	36.58	36.66	36.59	36.72	36.63	36.71	36.67	36.95	37.72	37.75	37.74
20	36.54	36.59	36.70	36.63	36.65	36.69	36.68	36.70	37.02	37.84	37.75	37.68
25	36.59	36.56	36.69	36.63	36.65	36.64	36.69	36.70	37.07	37.95	37.84	37.67
EOM	36.47	36.57	36.67	36.66	36.65	36.68	36.66	36.78	37.13	37.71	37.86	37.59

WTR YEAR 1980 MAX 36.40 OCT 10, 1979 MIN 38.15 AUG 10, 1980

THOMAS COUNTY

415845100334001. Local number 23N-28W-9DA.

LOCATION.--Lat 41°58'45", long 100°33'40", NE1/4SE1/4 sec.9, T.23 N., R.28 W., Hydrologic Unit 10210001, 1 mi (1.6 km) east of courthouse in Thedford. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits, undifferentiated, of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.25 in (0.03 m), depth 15 ft (4.6 m), screened from 13 to 15 ft (4.0 to 4.6 m).

DATUM.--Altitude of land-surface datum is 2,842 ft (866 m). Measuring point: Top of pipe 2.3 ft (0.7 m) above land-surface datum.

PERIOD OF RECORD.--December 1934 to November 1942; August 1944 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.73 ft (2.66 m) below land-surface datum, Oct. 16, 1970; lowest, 10.98 ft (3.35 m) below land-surface datum, July 23, 1940.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15	10.10										

VALLEY COUNTY

412955099123201. Local number 18N-16W-30CC.

LOCATION.--Lat 41°29'55", long 99°12'32", SW1/4SW1/4 sec.30, T.18 N., R.16 W., Hydrologic Unit 10210003, 4 mi (6.4 km) west and 5 mi (8.0 km) north of Arcadia. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.25 in (0.03 m), depth 15 ft (4.6 m), screened from 13 to 15 ft (4.0 to 4.6 m).

DATUM.--Altitude of land-surface datum is 2,217.61 ft (675.93 m). Measuring point: Top of casing 2.00 ft (0.61 m) above land-surface datum.

REMARKS.--Water levels in well affected by evapotranspiration.

PERIOD OF RECORD.--August 1949 to June 1956; June 1958 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.12 ft (0.34 m) below land-surface datum, July 23, 1962; lowest, 5.90 ft (1.80 m) below land-surface datum, Mar. 1, 1973.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15	3.70										

WEBSTER COUNTY

400423098314001. Local number 1N-11W-11AB.

LOCATION.--Lat 40°04'23", long 98°31'40", NW1/4NE1/4 sec.11, T.1 N., R.11 W., Hydrologic Unit 10250016, 1 mi (1.6 km) south and 0.25 mi (0.4 km) west of intersection of U.S. Highways 136 and 281 in Red Cloud. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 16.9 ft (5.2 m), casing perforated below water table.

DATUM.--Altitude of land-surface datum is 1,686 ft (514 m). Measuring point: Top of casing 1.1 ft (0.3 m) above land-surface datum.

PERIOD OF RECORD.--May 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.34 ft (0.41 m) below land-surface datum, July 11, 1951; lowest, 10.56 ft (3.22 m) below land-surface datum, Apr. 5, 1957.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 4	9.85	MAY 5	6.15								

YORK COUNTY

404620097482501. Local number 9N-4W-6DD.

LOCATION.--Lat 40°46'20", long 97°48'25", SE1/4SE1/4 sec.6, T.9 N., R.4 W., Hydrologic Unit 10270203, 0.5 mi (0.8 km) south of Henderson. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 18 in (0.46 m), depth 171 ft (52.1 m), casing perforated 83 to 171 ft (25.3 to 52.1 m).

DATUM.--Altitude of land-surface datum is 1,718 ft (524 m). Measuring point: Top of casing 0.0 ft (0.0 m) above land-surface datum.

REMARKS.--Water levels affected by withdrawals from nearby wells during irrigation season.

PERIOD OF RECORD.--May 1959 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 79.44 ft (24.21 m) below land-surface datum, June 20, 1959; lowest, 95.48 ft (29.10 m) below land-surface datum, Sept. 4, 1976.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	91.12	90.86	90.09	89.67	89.23	88.95	88.36	88.00	87.72	88.42	93.97	92.94
10	91.06	90.64	89.91	89.77	89.06	88.89	88.25	88.10	87.70	89.35	94.68	92.87
15	90.93	90.47	90.14	89.48	89.15	88.60	88.29	88.00	87.81	90.43	93.97	92.63
20	90.92	90.54	89.87	89.50	88.95	88.79	88.16	88.07	87.66	91.46	93.55	92.60
25	90.85	90.25	89.88	89.52	89.12	88.56	88.15	87.89	87.66	92.09	93.27	92.60
ECM	90.84	90.15	89.70	89.37	89.05	88.51	88.06	87.96	88.15	93.19	93.04	92.37

WTR YEAR 1980 MAX 87.47 JUN 22, 1980 MIN 94.68 AUG 10, 1980

YORK COUNTY

405305097351503. Local number 11N-2W-31BA3.

LOCATION.--Lat 40°53'05", long 97°35'15", NE1/4NW1/4 sec.31, T.11 N., R.2 W., Hydrologic Unit 10270203, south edge of York County Fairgrounds on the north side of York. Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel deposits of Pleistocene age.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 165 ft (50.3 m), perforated below water table.

DATUM.--Altitude of land-surface datum is 1,659 ft (506 m). Measuring point: Top of casing 1.6 ft (0.5 m) above land-surface datum.

REMARKS.--Replacement for well 405305097351501, local number 11N-2W-31BA1, with period of record October 1957 to January 1969. Water levels in well affected by withdrawals from nearby municipal well and by withdrawals from nearby irrigation wells.

PERIOD OF RECORD.--May 1969 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 88.65 ft (27.02 m) below land-surface datum, Apr. 20, 1970; lowest, 120.81 ft (36.82 m) below land-surface datum, July 15, 1974.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980
LOWEST WATER LEVEL FOR THE DAY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
05	98.88	97.37	96.86	97.14	96.37	96.15	96.35	97.49	96.36	100.21	116.06	100.87
10	98.51	97.14	96.83	96.45	96.57	96.11	95.65	98.23	96.66	109.21	114.65	100.12
15	98.69	97.24	96.82	96.64	96.25	96.20	95.60	98.02	96.97	110.85	104.30	100.75
20	98.40	97.20	96.84	96.70	96.00	96.25	96.60	96.45	97.85	113.83	102.34	100.35
25	98.00	97.05	96.67	96.57	95.86	96.03	96.60	96.65	96.96	115.11	101.35	99.82
ECM	97.36	96.93	96.61	96.61	95.86	95.88	96.80	96.87	102.61	117.23	101.08	99.75

WTR YEAR 1980 MAX 95.45 APR 7, 1980 MIN 117.23 JUL 31, 1980

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

(Local identifier: indicates location by township, range, and section. Geologic unit: 110 QRNR, Quaternary System; 110 WDBS, Quaternary windblown sand deposits; 112 SDGV, sand and gravel deposits; 121 OGLL, Ogallala Formation; 122 ARKR, Arikaree Group; 123 BRUL, Brule Formation, 123 CDRNB, Chadron Formation, basal sand and gravel; 211 DKOT, Dakota Sandstone; 211 NBRR, Niobrara Formation)

STATION NUMBER	LOCAL IDENT-I-FIER	LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	GEO-LOGIC UNIT	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)
					ADAMS				
402727098261901	6N 10W28DA 1	40 27 27	098 26 19	01	112SDGV	80-08-19	1645	--	410
402753098391801	6N 12W27AB 1	40 27 53	098 39 18	01	112SDGV	80-08-19	1100	190	452
403503098181301	7N 9W11DC 1	40 35 03	098 18 13	01	112SDGV	80-08-05	--	200	619
403710098395101	8N 12W34BC 1	40 37 10	098 39 51	01	110SDGV	80-08-20	1030	130	324
					BOONE				
413309097540001	18N 5W 9BA 1	41 33 09	097 54 00	01	112SDGV	80-07-14	1500	103	435
413302097522501	18N 5W10AD 1	41 33 02	097 52 25	01	112SDGV	80-07-14	1545	117	463
413058097541701	18N 5W21CB 1	41 30 58	097 54 17	01	112SDGV	80-07-23	1230	352	475
413347098002001	18N 6W 4AD 1	41 33 47	098 00 20	01	112SDGV	80-07-23	1300	162	470
413400098014701	18N 6W 5AB 1	41 34 00	098 01 47	01	112SDGV	80-07-14	1600	242	425
413242098002001	18N 6W 9DA 1	41 32 42	098 00 20	01	112SDGV	80-07-23	1315	202	510
413216098000301	18N 6W15BB 1	41 32 16	098 00 03	01	121OGLL	80-07-14	1400	215	497
413124098031301	18N 6W19BA 1	41 31 24	098 00 03	01	121OGLL	80-07-14	1330	346	469
413333098091501	18N 7W 5CB 1	41 33 33	098 09 15	01	121OGLL	80-07-11	0900	251	550
413116098072301	18N 7W21AD 1	41 31 16	098 07 23	01	121OGLL	80-07-11	1030	218	580
413649098093301	19N 7W18DD 1	41 36 49	098 09 33	01	112SDGV	80-07-10	1535	160	519
413517098040501	19N 7W25DB 1	41 35 17	098 04 05	01	121OGLL	80-07-14	1230	304	415
413543098091501	19N 7W29BB 1	41 35 43	098 09 15	01	112SDGV	80-07-14	1615	115	580
413412098095001	19N 7W31DC 1	41 34 12	098 09 50	01	121OGLL	80-07-11	0800	254	660
413905098115901	19N 8W 2AD 1	41 39 05	098 11 59	01	121OGLL	80-07-10	1230	203	410
413740098140901	19N 8W 9DD 1	41 37 40	098 14 09	01	112SDGV	80-07-10	1045	102	553
413648098111601	19N 8W13CD 1	41 36 48	098 11 16	01	112SDGV	80-07-10	1300	140	482
413510098105001	19N 8W25DD 1	41 35 10	098 10 50	01	121OGLL	80-07-10	1530	106	237
413931098160101	20N 8W32CD 1	41 39 31	098 16 01	01	121OGLL	80-07-10	1000	208	428
					BROWN				
423107099423501	29N 20W 6BAC 1	42 31 07	099 42 35	01	112SDGV	80-06-10	1430	--	110
					112SDGV	80-07-29	1515	--	120
423548099453501	30N 21W 3DDB 1	42 35 48	099 45 35	01	121OGLL	80-07-29	1415	400	135
423308099512001	30N 22W23DDB 1	42 33 08	099 51 20	01	121OGLL	80-06-10	1030	--	372
					121OGLL	80-07-29	1100	--	359
423415100032401	30N 23W18ACC 1	42 34 15	100 03 24	01	112SDGV	80-06-09	1600	--	107
					112SDGV	80-07-28	1530	--	124
					BUFFALO				
404758098485601	10N 13W32BBB 1	40 47 58	098 48 56	01	112SDGV	80-05-02	1005	38	1260
					112SDGV	80-09-09	1245	38	1130
404758098485602	10N 13W32BBB 2	40 47 58	098 48 56	02	112SDGV	80-05-02	1030	54	1090
					112SDGV	80-09-09	1300	54	1080
404758098485603	10N 13W32BBB 3	40 47 58	098 48 56	03	112SDGV	80-05-02	1055	70	826
					112SDGV	80-09-09	1315	70	813
					CHERRY				
421817100160301	27N 25W18DD 1	42 18 17	100 16 03	01	112SDHL	80-08-06	1540	70	110
421918100381301	27N 29W12DD 1	42 19 18	100 38 13	01	121OGLL	80-08-06	1340	314	129
422642100170701	29N 25W31AD 1	42 26 42	100 17 07	01	121OGLL	80-08-06	1745	432	114
423045101580501	29N 40W12BB 1	42 30 45	101 58 05	01	112SDHL	80-08-05	1430	155	110

STATION NUMBER	DATE OF SAMPLE	PH FIELD (UNITS) (00400)	TEMPERATURE, WATER (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)
ADAMS											
402727098261901	80-08-19	6.6	21.0	--	160	2	53	7.3	15	5.0	7.4
402753098391801	80-08-19	7.2	15.0	--	190	27	62	7.9	16	.5	7.7
403503098181301	80-08-05	7.6	14.0	--	220	53	73	10	32	.9	7.5
403710098395101	80-08-20	7.1	17.0	--	120	14	39	6.4	13	.5	6.1
BOONE											
413309097540001	80-07-14	7.3	--	--	200	86	62	10	8.5	.3	6.4
413302097522501	80-07-14	7.2	--	--	210	0	64	11	8.3	.3	6.4
413058097541701	80-07-23	7.3	16.0	--	220	0	70	10	8.5	.3	4.9
413347098002001	80-07-23	7.1	14.0	--	200	0	65	10	8.6	.3	7.0
413400098014701	80-07-14	7.0	--	--	190	0	61	10	8.1	.3	6.7
413242098002001	80-07-23	7.2	14.0	--	230	0	73	12	11	.3	7.5
413216098000301	80-07-14	7.2	--	--	220	0	71	11	10	.3	6.0
413124098031301	80-07-14	7.4	--	--	220	0	70	10	9.0	.3	5.3
413333098091501	80-07-11	7.5	--	--	270	0	87	12	9.9	.3	5.6
413116098072301	80-07-11	7.4	--	--	280	9	92	12	9.0	.2	6.7
413649098093301	80-07-10	7.0	--	--	230	9	72	12	8.4	.2	8.4
413517098040501	80-07-14	7.0	--	--	180	0	58	9.3	7.6	.2	6.5
413543098091501	80-07-14	6.9	--	--	260	32	80	15	11	.3	9.2
413412098095001	80-07-11	6.9	--	--	300	73	95	16	17	.4	7.5
413905098115901	80-07-10	7.4	--	--	170	0	54	8.7	8.3	.3	7.4
413740098140901	80-07-10	7.4	--	--	230	0	71	12	16	.5	9.9
413648098111601	80-07-10	7.6	--	--	230	0	70	13	8.3	.2	8.6
413510098105001	80-07-10	8.2	--	--	100	0	32	4.8	6.9	.3	6.5
413931098160101	80-07-10	7.5	--	--	180	0	58	9.6	9.6	.3	9.0
BROWN											
423107099423501	80-06-10	7.5	24.5	--	41	1	14	1.5	4.8	.3	3.8
	80-07-29	6.9	14.0	--	39	0	13	1.6	4.5	.3	3.7
423548099453501	80-07-29	6.9	16.0	--	47	0	15	2.4	4.7	.3	4.3
423308099512001	80-06-10	7.3	--	--	140	36	42	7.6	13	.5	8.8
	80-07-29	6.1	13.5	--	130	33	40	7.6	13	.5	9.1
423415100032401	80-06-09	6.5	14.0	--	34	0	11	1.7	4.6	.3	2.6
	80-07-28	7.2	16.5	--	38	6	12	1.9	4.8	.3	2.4
BUFFALO											
404758098485601	80-05-02	6.9	13.0	.7	560	130	180	28	67	1.2	15
	80-09-09	7.2	13.0	.4	440	44	140	23	75	1.5	17
404758098485602	80-05-02	7.0	12.5	.3	520	180	170	22	32	.6	10
	80-09-09	7.2	12.5	.2	540	200	180	23	32	.6	12
404758098485603	80-05-02	7.0	14.5	1.0	400	110	130	19	18	.4	9.0
	80-09-09	7.3	13.0	2.1	400	99	130	18	18	.4	8.5
CHERRY											
421817100160301	80-08-06	7.0	14.0	--	34	0	11	1.7	6.0	.4	5.2
421918100381301	80-08-06	7.6	14.0	--	47	0	15	2.2	4.2	.3	5.9
422642100170701	80-08-06	7.9	14.0	--	44	1	14	2.1	3.5	.2	5.3
423045101580501	80-08-05	7.8	14.0	--	35	0	11	1.9	4.5	.3	5.5

STATION NUMBER	DATE OF SAMPLE	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
					ADAMS						
402727098261901	80-08-19	160	30	6.3	.4	37	--	263	.36	--	2.4
402753098391801	80-08-19	160	53	7.3	.4	29	--	285	.39	--	1.2
403503098181301	80-08-05	170	53	40	.5	27	--	376	.51	--	6.9
403710098395101	80-08-20	11	22	5.2	.3	30	--	201	.27	--	2.8
					BOONE						
413309097540001	80-07-14	208	5.4	2.1	.4	43	--	210	.29	--	1.3
413302097522501	80-07-14	220	6.5	1.8	.4	45	--	284	.39	--	1.9
413058097541701	80-07-23	230	9.4	1.8	.3	54	--	302	.41	--	1.1
413347098002001	80-07-23	210	8.4	1.6	.3	48	--	292	.40	--	3.7
413400098014701	80-07-14	200	6.1	1.4	.4	47	--	268	.36	--	1.7
413242098002001	80-07-23	240	10	2.7	.3	50	--	336	.46	--	5.7
413216098000301	80-07-14	240	10	1.7	.4	54	--	315	.43	--	1.4
413124098031301	80-07-14	220	7.1	1.4	.3	57	--	301	.41	--	2.0
413333098091501	80-07-11	270	9.3	2.8	.3	51	--	347	.47	--	1.5
413116098072301	80-07-11	270	12	2.9	.3	60	--	368	.50	--	2.5
413649098093301	80-07-10	220	7.5	2.6	.4	43	--	307	.42	--	4.7
413517098040501	80-07-14	200	5.2	1.6	.5	42	--	258	.35	--	1.6
413543098091501	80-07-14	230	26	10	.4	44	--	345	.47	--	2.5
413412098095001	80-07-11	--	25	3.3	.3	54	--	373	.51	--	3.8
413905098115901	80-07-10	180	3.1	1.8	.4	40	--	239	.33	--	1.5
413740098140901	80-07-10	240	13	3.0	.5	40	--	322	.44	--	2.7
413648098111601	80-07-10	240	10	2.5	.4	43	--	320	.44	--	4.6
413510098105001	80-07-10	110	12	1.5	.3	32	--	--	--	--	--
413931098160101	80-07-10	200	7.3	1.5	.5	43	--	265	.36	--	1.4
					BROWN						
423107099423501	80-06-10	51	4.9	.7	.2	55	--	112	.15	--	1.4
	80-07-29	41	1.5	.4	.4	53	--	110	.15	--	1.7
423548099453501	80-07-29	49	.3	.4	.4	63	--	125	.17	--	1.2
423308099512001	80-06-10	100	20	7.2	.2	53	--	256	.35	--	10
	80-07-29	98	19	7.7	.4	52	--	261	.36	--	12
423415100032401	80-06-09	34	8.3	3.5	.1	34	--	93	.13	--	1.5
	80-07-28	32	10	2.0	.3	35	--	96	.13	--	1.9
					BUFFALO						
404758098485601	80-05-02	430	250	15	--	--	--	--	--	.06	--
	80-09-09	400	210	16	--	--	--	--	--	.00	--
404758098485602	80-05-02	340	220	18	--	--	--	--	--	.49	--
	80-09-09	340	240	18	--	--	--	--	--	.35	--
404758098485603	80-05-02	290	130	12	--	--	--	--	--	.38	--
	80-09-09	300	130	13	--	--	--	--	--	.42	--
					CHERRY						
421817100160301	80-08-06	43	3.7	1.8	.2	57	--	121	.16	--	1.9
421918100381301	80-08-06	57	2.2	.7	.2	61	--	128	.17	--	.48
422642100170701	80-08-06	43	.7	1.7	.3	60	--	119	.16	--	1.3
423045101580501	80-08-05	40	3.4	1.4	.2	55	--	118	.16	--	2.5

STATION NUMBER	DATE OF SAMPLE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)
ADAMS										
402727098261901	80-08-19	--	--	--	--	--	40	<10	<1	--
402753098391801	80-08-19	--	--	--	--	--	40	<10	2	--
403503098181301	80-08-05	--	--	--	--	--	80	<10	7	--
403710098395101	80-08-20	--	--	--	--	--	50	<10	2	--
BOONE										
413309097540001	80-07-14	--	--	--	--	--	--	--	--	--
413302097522501	80-07-14	--	--	--	--	--	--	--	--	--
413058097541701	80-07-23	--	--	--	--	--	--	--	--	--
413347098002001	80-07-23	--	--	--	--	--	--	--	--	--
413400098014701	80-07-14	--	--	--	--	--	--	--	--	--
413242098002001	80-07-23	--	--	--	--	--	--	--	--	--
413216098000301	80-07-14	--	--	--	--	--	--	--	--	--
413124098031301	80-07-14	--	--	--	--	--	--	--	--	--
413333098091501	80-07-11	--	--	--	--	--	--	--	--	--
413116098072301	80-07-11	--	--	--	--	--	--	--	--	--
413649098093301	80-07-10	--	--	--	--	--	--	--	--	--
413517098040501	80-07-14	--	--	--	--	--	--	--	--	--
413543098091501	80-07-14	--	--	--	--	--	--	--	--	--
413412098095001	80-07-11	--	--	--	--	--	--	--	--	--
413905098115901	80-07-10	--	--	--	--	--	--	--	--	--
413740098140901	80-07-10	--	--	--	--	--	--	--	--	--
413648098111601	80-07-10	--	--	--	--	--	--	--	--	--
413510098105001	80-07-10	--	--	--	--	--	--	40	20	--
413931098160101	80-07-10	--	--	--	--	--	--	--	--	--
BROWN										
423107099423501	80-06-10	--	--	--	--	--	--	--	--	--
	80-07-29	--	--	--	--	--	--	--	--	--
423548099453501	80-07-29	--	--	--	--	--	--	--	--	--
423308099512001	80-06-10	--	--	--	--	--	--	--	--	--
	80-07-29	--	--	--	--	--	--	--	--	--
423415100032401	80-06-09	--	--	--	--	--	--	--	--	--
	80-07-28	--	--	--	--	--	--	--	--	--
BUFFALO										
404758098485601	80-05-02	1.200	1.0	2.2	2.3	--	--	--	--	9.2
	80-09-09	1.300	.40	1.7	1.7	--	--	--	--	4.0
404758098485602	80-05-02	.040	1.6	1.6	2.1	--	--	--	--	18
	80-09-09	.080	.23	.31	.56	--	--	--	--	3.3
404758098485603	80-05-02	.010	.41	.42	.80	--	--	--	--	6.9
	80-09-09	.000	.33	.33	.75	--	--	--	--	2.7
CHERRY										
421817100160301	80-08-06	--	--	--	--	--	130	<10	2	--
421918100381301	80-08-06	--	--	--	--	--	130	<10	40	--
422642100170701	80-08-06	--	--	--	--	--	130	20	9	--
423045101580501	80-08-05	--	--	--	--	--	130	60	10	--

STATION NUMBER	LOCAL IDENT-I-FIER	LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	GEO-LOGIC UNIT	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)
CHERRY									
423820101054001	31N 32W29AB 1	42 38 20	101 05 40	01	121OGLL	80-08-06	1130	376	112
424037101584101	31N 40W11AC 1	42 40 37	101 58 41	01	121OGLL	80-08-05	0850	293	165
424311101211801	32N 34W30CA 1	42 43 11	101 21 18	01	121OGLL	80-08-06	1005	360	171
424429101435001	32N 38W24BB 1	42 44 29	101 43 50	01	121OGLL	80-08-05	1055	240	118
424936101192101	33N 34W21AA 1	42 49 36	101 19 21	01	112SDHL	80-08-05	1740	260	122
425243100512601	34N 30W33BD 1	42 52 43	100 51 26	01	121OGLL	80-08-05	1915	325	214
CLAY									
402207097580801	5N 6W26CD 1	40 22 07	097 58 08	01	112SDGV	80-08-19	1415	183	647
403123098031401	6N 7W 1AA 1	40 31 23	098 03 14	01	112SDGV	80-08-20	0830	--	605
403001098152903	6N 8W 8CB 3	40 30 01	098 15 29	03	112SDGV	80-08-19	1600	192	345
403634097504301	7N 5W 2AA 1	40 36 34	097 50 43	01	112SDGV	80-08-05	--	215	529
403739098054801	8N 7W27DC 1	40 37 39	098 05 48	01	112SDGV	80-08-05	--	204	448
CUSTER									
410543099513901	13N 22W17DB 1	41 05 43	099 51 39	01	121OGLL	80-08-27	1410	355	462
411109099331601	14N 20W13AC 1	41 11 09	099 33 16	01	121OGLL	80-08-26	1930	425	543
410825100020301	14N 24W35D 1	41 08 25	100 02 03	01	121OGLL	80-08-27	1145	450	394
411609099320701	15N 19W18DB 1	41 16 09	099 32 07	01	121OGLL	80-08-26	1800	264	458
411528100124601	15N 25W20BC 1	41 15 28	100 12 46	01	121OGLL	80-08-27	1000	426	171
412227099421101	16N 21W10AD 1	41 22 27	099 42 11	01	121OGLL	80-08-26	1630	501	416
DAWSON									
404335099593501	9N 23W30BB 1	40 43 35	099 59 35	01	121OGLL	80-08-12	1530	380	886
404245100030001	9N 24W34BB 1	40 42 45	100 03 00	01	121OGLL	80-08-12	1500	380	759
404302100123301	9N 25W30DD 1	40 43 02	100 12 33	01	121OGLL	80-08-12	1345	566	483
FILLMORE									
402516097272001	5N 1W 89A 1	40 25 16	097 27 20	01	112SDGV	80-08-19	1030	--	945
402500097431401	5N 4W12BD 1	40 25 00	097 43 14	01	112SDGV	80-08-19	1115	131	425
403145097360901	7N 3W36DB 1	40 31 45	097 36 09	01	112SDGV	80-08-06	--	196	550
403843097270602	8N 1W20DB 2	40 38 43	097 27 06	02	112SDGV	80-08-06	--	306	721
FRANKLIN									
401028098562801	2N 14W 6AB 1	40 10 28	098 56 28	01	112SDGV	80-08-14	1600	247	357
401258098450101	3N 13W23AD 1	40 12 58	098 45 01	01	112SDGV	80-08-26	1300	275	596
401356099004101	3N 15W16AA 1	40 13 56	099 00 41	01	112SDGV	80-08-14	1530	302	468
401801098433901	4N 13W24AD 1	40 18 01	098 43 39	01	112SDGV	80-08-20	1330	150	560
402002098561101	4N 14W 7AA 1	40 20 02	098 56 11	01	112SDGV	80-08-26	1115	230	589
401620099103501	4N 16W31CC 1	40 16 20	099 10 35	01	112SDGV	80-08-14	1415	--	500
FURNAS									
401936099423901	4N 21W 8DB 1	40 19 36	099 42 39	01	121OGLL	80-08-13	1530	200	515
401937099525101	4N 23W11DB 1	40 19 37	099 52 51	01	112SDGV	80-08-13	1430	157	485
GARFIELD									
414818098471701	21N 13W11DC 1	41 48 18	098 47 17	01	112SDHL	80-08-08	1100	123	171
415131099052801	22N 15W19DD 1	41 51 31	099 05 28	01	112SDHL	80-08-08	1405	282	372
420319098464201	24N 13W13BC 1	42 03 19	098 46 42	01	121OGLL	80-08-07	1315	417	180
420115098470801	24N 13W26DD 1	42 01 15	098 47 08	01	121OGLL	80-08-07	1335	420	175
GOSPER									
402516099493301	5N 22W 9BB 1	40 25 16	099 49 33	01	121OGLL	80-08-13	1400	242	512
402518100034701	5N 24W 8AB 1	40 25 18	100 03 47	01	121OGLL	80-08-13	1300	195	540
402912099572401	6N 23W17CA 1	40 29 12	099 57 24	01	121OGLL	80-08-13	1045	240	505
403506099505801	7N 22W 7DD 1	40 35 06	099 50 58	01	121OGLL	80-08-13	1000	345	695

STATION NUMBER	DATE OF SAMPLE	PH FIELD (UNITS) (00400)	TEMPERATURE, WATER (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)
					CHERRY						
423820101054001	80-08-06	7.8	14.0	--	45	0	14	2.4	5.0	.3	4.5
424037101584101	80-08-05	8.9	13.0	--	52	1	17	2.3	3.8	.2	4.4
424311101211801	80-08-06	7.9	14.0	--	68	0	20	4.3	5.0	.3	5.7
424429101435001	80-08-05	7.5	14.0	--	42	0	13	2.2	5.2	.4	5.6
424936101192101	80-08-05	7.7	13.0	--	45	0	14	2.4	4.9	.3	5.6
425243100512601	80-08-05	7.9	13.0	--	89	0	29	4.1	5.6	.3	6.1
					CLAY						
402207097580801	80-08-19	7.4	16.0	--	250	15	80	11	32	.9	7.0
403123098031401	80-08-20	6.6	17.0	--	250	63	83	11	27	.7	6.2
403001098152903	80-08-19	7.4	15.0	--	130	8	42	5.7	14	.5	5.7
403634097504301	80-08-05	7.0	14.0	--	200	4	66	9.5	24	.7	5.9
403739098054801	80-08-05	7.2	14.0	--	170	44	55	8.8	17	.6	6.5
					CUSTER						
410543099513901	80-08-27	7.4	15.0	--	210	18	65	11	8.1	.2	7.0
411109099331601	80-08-26	7.4	14.0	--	240	0	76	12	6.9	.2	8.5
410825100020301	80-08-27	7.2	15.0	--	160	12	50	9.0	7.9	.3	6.6
411609099320701	80-08-26	7.4	14.0	--	190	3	62	9.2	7.5	.2	7.0
411528100124601	80-08-27	7.7	14.0	--	55	0	18	2.5	5.5	.3	4.4
412227099421101	80-08-26	7.3	14.0	--	170	0	56	8.2	7.9	.3	7.1
					DAWSON						
404335099593501	80-08-12	7.6	14.0	--	310	97	100	14	73	1.8	11
404245100030001	80-08-12	7.2	18.0	--	310	99	86	23	32	.8	13
404302100123301	80-08-12	7.7	17.0	--	220	4	60	18	8.2	.2	12
					FILLMORE						
402516097272001	80-08-19	7.4	20.0	--	450	120	140	24	25	.5	10
402500097431401	80-08-19	7.6	18.0	--	160	7	50	7.7	23	.8	5.2
403145097360901	80-08-06	7.5	15.0	--	210	36	66	10	30	.9	5.5
403843097270602	80-08-06	7.7	15.0	--	320	110	99	17	30	.7	5.3
					FRANKLIN						
401028098562801	80-08-14	7.3	14.5	--	150	0	49	7.5	10	.4	6.6
401258098450101	80-08-26	7.2	14.0	--	270	46	85	13	19	.5	8.2
401356099004101	80-08-14	7.2	15.0	--	200	10	64	9.8	15	.5	8.7
401801098433901	80-08-20	7.0	14.5	--	250	34	82	12	14	.4	7.5
402002098561101	80-08-26	7.2	14.5	--	250	42	81	12	22	.6	9.5
401620099103501	80-08-14	7.2	17.0	--	230	10	74	11	12	.3	8.8
					FURNAS						
401936099423901	80-08-13	7.1	17.0	--	240	33	66	19	10	.3	11
401937099525101	80-08-13	7.1	15.5	--	210	0	60	15	12	.4	10
					GARFIELD						
414818098471701	80-08-08	7.4	13.5	--	69	2	21	4.1	5.7	.3	4.8
415131099052801	80-08-08	7.6	13.5	--	170	0	52	9.5	7.2	.2	7.0
420319098464201	80-08-07	7.6	14.0	--	76	0	25	3.2	6.8	.3	3.9
420115098470801	80-08-07	7.5	14.0	--	74	0	24	3.5	5.4	.3	4.1
					GOSPER						
402516099493301	80-08-13	7.0	16.0	--	240	54	68	18	9.6	.3	11
402518100034701	80-08-13	7.8	19.0	--	250	8	73	16	9.6	.3	10
402912099572401	80-08-13	7.7	16.0	--	250	0	67	19	8.6	.2	10
403506099505801	80-08-13	7.6	16.5	--	290	120	80	21	11	.3	11

STATION NUMBER	DATE OF SAMPLE	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
					CHERRY						
423820101054001	80-08-06	45	6.7	.5	.3	66	--	127	.17	--	.12
424037101584101	80-08-05	51	2.2	1.2	.2	61	--	130	.18	--	1.6
424311101211801	80-08-06	75	3.2	.9	.3	62	--	148	.20	--	.32
424429101435001	80-08-05	51	5.4	.8	.3	63	--	130	.18	--	.84
424936101192101	80-08-05	51	1.8	1.7	.3	58	--	125	.17	--	1.3
425243100512601	80-08-05	92	1.2	.7	.3	55	--	168	.23	--	2.4
					CLAY						
402207097580801	80-08-19	230	46	19	.4	32	--	404	.55	--	8.7
403123098031401	80-08-20	190	100	18	.4	23	--	384	.52	--	.27
403001098152903	80-08-19	120	15	6.9	.4	27	--	203	.28	--	3.1
403634097504301	80-08-05	200	29	14	.4	31	--	310	.42	--	2.3
403739098054801	80-08-05	130	61	13	.4	30	--	275	.37	--	1.2
					CUSTER						
410543099513901	80-08-27	190	23	4.0	.2	51	--	299	.41	--	3.5
411109099331601	80-08-26	240	20	3.4	.2	56	--	349	.47	--	4.9
410825100020301	80-08-27	150	29	2.3	.2	48	--	263	.36	--	4.4
411609099320701	80-08-26	190	13	4.7	.2	50	--	283	.38	--	3.5
411528100124601	80-08-27	65	2.2	3.4	.2	44	--	129	.18	--	2.0
412227099421101	80-08-26	180	17	2.3	.2	54	--	275	.37	--	3.1
					DAWSON						
404335099593501	80-08-12	210	200	28	.3	48	--	607	.83	--	1.4
404245100030001	80-08-12	210	160	20	.3	66	--	532	.72	--	1.2
404302100123301	80-08-12	220	20	2.5	.4	67	--	336	.46	--	3.5
					FILLMORE						
402516097272001	80-08-19	330	160	8.0	.5	38	--	622	.85	--	4.0
402500097431401	80-08-19	150	37	14	.4	28	--	260	.35	--	1.1
403145097360901	80-08-06	170	63	18	.5	25	--	333	.45	--	2.8
403843097270602	80-08-06	210	130	13	.5	32	--	467	.64	--	3.0
					FRANKLIN						
401028098562801	80-08-14	160	16	5.1	.2	43	--	243	.33	--	2.2
401258098450101	80-08-26	220	62	13	.3	34	--	374	.51	--	1.6
401356099004101	80-08-14	190	29	15	.2	41	--	313	.43	--	3.6
401801098433901	80-08-20	220	55	11	.3	41	--	367	.50	--	2.7
402002098561101	80-08-26	210	81	5.1	.3	29	--	375	.51	--	2.0
401620099103501	80-08-14	220	19	7.0	.3	46	--	326	.44	--	3.5
					FURNAS						
401936099423901	80-08-13	210	17	3.1	.3	65	--	329	.45	--	2.6
401937099525101	80-08-13	230	19	5.3	.5	61	--	330	.45	--	2.1
					GARFIELD						
414818098471701	80-08-08	67	3.6	1.8	.2	55	--	150	.20	--	3.1
415131099052801	80-08-08	170	5.1	1.4	.2	50	--	262	.36	--	6.1
420319098464201	80-08-07	84	3.6	.5	.2	59	--	154	.21	--	.30
420115098470801	80-08-07	75	4.2	.9	.3	58	--	155	.21	--	2.2
					GOSPER						
402516099493301	80-08-13	190	19	34	.4	63	--	348	.47	--	2.5
402518100034701	80-08-13	240	24	4.7	.5	61	--	369	.50	--	5.8
402912099572401	80-08-13	250	19	3.4	.4	63	--	351	.48	--	2.4
403506099505801	80-08-13	170	120	16	.3	65	--	439	.60	--	2.8

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

STATION NUMBER	DATE OF SAMPLE	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)
				CHERRY						
423820101054001	80-08-06	--	--	--	--	--	130	60	60	--
424037101584101	80-08-05	--	--	--	--	--	140	<10	2	--
424311101211801	80-08-06	--	--	--	--	--	130	60	130	--
424429101435001	80-08-05	--	--	--	--	--	130	40	100	--
424936101192101	80-08-05	--	--	--	--	--	130	30	20	--
425243100512601	80-08-05	--	--	--	--	--	130	<10	1	--
				CLAY						
402207097580801	80-08-19	--	--	--	--	--	30	10	<1	--
403123098031401	80-08-20	--	--	--	--	--	60	10	150	--
403001098152903	80-08-19	--	--	--	--	--	30	<10	<1	--
403634097504301	80-08-05	--	--	--	--	--	70	<10	10	--
403739098054801	80-08-05	--	--	--	--	--	80	<10	2	--
				CUSTER						
410543099513901	80-08-27	--	--	--	--	--	10	210	7	--
411109099331601	80-08-26	--	--	--	--	--	120	<10	2	--
410825100020301	80-08-27	--	--	--	--	--	5	130	6	--
411609099320701	80-08-26	--	--	--	--	--	5	60	6	--
411528100124601	80-08-27	--	--	--	--	--	0	470	10	--
412227099421101	80-08-26	--	--	--	--	--	10	90	3	--
				DAWSON						
404335099593501	80-08-12	--	--	--	--	--	210	30	2	--
404245100030001	80-08-12	--	--	--	--	--	90	<10	1	--
404302100123301	80-08-12	--	--	--	--	--	40	<10	2	--
				FILLMORE						
402516097272001	80-08-19	--	--	--	--	--	70	<10	170	--
402500097431401	80-08-19	--	--	--	--	--	50	<10	10	--
403145097360901	80-08-06	--	--	--	--	--	70	30	50	--
403843097270602	80-08-06	--	--	--	--	--	90	370	40	--
				FRANKLIN						
401028098562801	80-08-14	--	--	--	--	--	50	<10	<1	--
401258098450101	80-08-26	--	--	--	--	--	90	<10	3	--
401356099004101	80-08-14	--	--	--	--	--	60	<10	3	--
401801098433901	80-08-20	--	--	--	--	--	40	<10	<1	--
402002098561101	80-08-26	--	--	--	--	--	30	60	110	--
401620099103501	80-08-14	--	--	--	--	--	90	30	5	--
				FURNAS						
401936099423901	80-08-13	--	--	--	--	--	150	<10	<1	--
401937099525101	80-08-13	--	--	--	--	--	100	<10	1	--
				GARFIELD						
414818098471701	80-08-08	--	--	--	--	--	130	<10	4	--
415131099052801	80-08-08	--	--	--	--	--	140	90	6	--
420319098464201	80-08-07	--	--	--	--	--	130	<10	10	--
420115098470801	80-08-07	--	--	--	--	--	130	<10	2	--
				GOSPER						
402516099493301	80-08-13	--	--	--	--	--	150	<10	1	--
402518100034701	80-08-13	--	--	--	--	--	100	<10	1	--
402912099572401	80-08-13	--	--	--	--	--	70	<10	<1	--
403506099505801	80-08-13	--	--	--	--	--	150	30	3	--

STATION NUMBER	LOCAL IDENT- I- FIER	LAT- I- TUDE	LONG- I- TUDE	SEQ. NO.	GEO- LOGIC UNIT	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)
			GOSPER						
403743099395301	8N 21W26DD 1	40 37 43	099 39 53	01	112SDGV	80-08-13	0900	220	705
			GREELEY						
413838098181901	19N 9W 1CO 1	41 38 38	098 18 19	01	121OGLL	80-07-10	0930	222	561
413844098204501	19N 9W 3CB 1	41 38 44	098 20 45	01	121OGLL	80-07-10	0830	247	435
414120098213702	20N 9W21CA 2	41 41 20	098 21 37	02	112SDGV	80-07-09	1530	158	370
414159098275701	20N 10W16DD 1	41 41 59	098 27 57	01	121OGLL	80-07-09	1430	300	367
414140098243801	20N 10W24AO 1	41 41 40	098 24 38	01	121OGLL	80-07-09	1500	140	338
			HALL						
404659098395601	9N 12W 4AAD 1	40 46 59	098 39 56	01	112SDGV	80-05-01	1440	34	999
					112SDGV	80-09-08	1455	34	1110
404659098395602	9N 12W 4AAD 2	40 46 59	098 39 56	02	112SDGV	80-05-01	1415	51	950
					112SDGV	80-09-08	1510	51	950
404620098425601	9N 12W 6CDC 1	40 46 20	098 42 56	01	112SDGV	80-05-02	0910	58	890
					112SDGV	80-09-08	1540	58	943
405125098271901	10N 10W 8AAA 1	40 51 25	098 27 19	01	112SDGV	80-04-30	1155	70	528
					112SDGV	80-09-05	1410	70	566
405212098293701	10N 11W 1AAD 1	40 52 12	098 29 37	01	112SDGV	80-04-30	1015	34	1360
					112SDGV	80-09-05	0920	34	1450
405212098293702	10N 11W 1AAD 2	40 52 12	098 29 37	02	112SDGV	80-04-30	1045	49	905
					112SDGV	80-09-05	0945	49	980
405212098293703	10N 11W 1AAD 3	40 52 12	098 29 37	03	112SDGV	80-04-30	1115	64	865
					112SDGV	80-09-05	1000	64	873
405001098315501	10N 11W15DAD 1	40 50 01	098 31 55	01	112SDGV	80-05-01	0840	55	522
					112SDGV	80-09-05	1320	55	542
405027098330301	10N 11W16ADD 1	40 50 27	098 33 03	01	112SDGV	80-04-30	1520	37	1270
					112SDGV	80-09-05	1120	37	1340
405027098330302	10N 11W16ADD 2	40 50 27	098 33 03	02	112SDGV	80-04-30	1550	50	790
					112SDGV	80-09-05	1135	50	815
405027098330303	10N 11W16ADD 3	40 50 27	098 33 03	03	112SDGV	80-04-30	1615	61	690
					112SDGV	80-09-05	1155	61	683
404850098293701	10N 11W30ABA 1	40 48 50	098 29 37	01	112SDGV	80-05-01	0920	62	700
					112SDGV	80-09-09	1010	62	746
404712098421301	10N 11W31DDD 1	40 47 12	098 42 13	01	112SDGV	80-05-01	1340	60	947
					112SDGV	80-09-09	1045	60	940
405120098362901	10N 12W12AAD 1	40 51 20	098 36 29	01	112SDGV	80-05-01	1010	67	842
					112SDGV	80-09-08	1130	67	920
404817098391301	10N 12W27DBC 1	40 48 17	098 39 13	01	112SDGV	80-05-01	1115	36	1190
					112SDGV	80-06-17	--	36	1070
					112SDGV	80-07-14	--	36	965
					112SDGV	80-08-13	1010	36	1090
					112SDGV	80-09-08	1300	36	988
404817098391302	10N 12W27DBC 2	40 48 17	098 39 13	02	112SDGV	80-05-01	1155	52	990

STATION NUMBER	DATE OF SAMPLE	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)
GOSPER											
403743099395301	80-08-13	7.5	15.5	--	310	130	100	14	19	.5	9.6
GREELEY											
413838098181901	80-07-10	7.5	--	--	260	0	82	13	11	.3	14
413844098204501	80-07-10	7.2	--	--	220	0	71	11	9.5	.3	14
414120098213702	80-07-09	7.2	--	--	160	0	49	8.0	7.3	.3	8.7
414159098275701	80-07-09	7.2	--	--	140	0	44	7.5	6.7	.2	9.9
414140098243801	80-07-09	7.5	--	--	140	0	45	6.9	6.9	.3	8.6
HALL											
404659098395601	80-05-01	6.1	13.0	5.2	460	350	140	27	26	.5	24
	80-09-08	6.7	14.0	5.9	440	310	130	27	23	.5	32
404659098395602	80-05-01	6.6	13.5	3.3	410	300	130	21	26	.6	12
	80-09-08	6.8	13.5	1.2	410	300	130	21	22	.5	13
404620098425601	80-05-02	7.0	13.0	.3	380	160	120	20	28	.6	21
	80-09-08	7.3	13.5	.0	390	160	120	22	28	.6	21
405125098271901	80-04-30	6.8	14.5	3.7	230	64	74	12	11	.3	9.3
	80-09-05	7.0	13.5	3.8	230	73	72	13	11	.3	9.9
405212098293701	80-04-30	7.0	14.0	1.1	650	240	180	49	49	.8	31
	80-09-05	7.1	13.0	1.0	540	440	150	39	47	.9	39
405212098293702	80-04-30	7.1	15.0	3.7	380	68	120	19	44	1.0	18
	80-09-05	7.2	13.0	7.2	380	82	120	20	46	1.0	16
405212098293703	80-04-30	7.4	14.5	.1	370	40	120	17	44	1.0	14
	80-09-05	7.6	13.0	.4	350	99	110	18	42	1.0	15
405001098315501	80-05-01	6.8	12.5	8.7	210	99	64	12	12	.4	8.8
	80-09-05	7.0	13.0	8.8	230	19	72	12	13	.4	9.9
405027098330301	80-04-30	6.8	14.5	8.1	560	250	170	34	33	.6	15
	80-09-05	7.0	13.5	7.9	520	200	150	35	33	.6	17
405027098330302	80-04-30	7.0	15.0	6.4	350	120	110	19	28	.6	12
	80-09-05	7.1	13.0	5.9	330	110	99	19	31	.7	10
405027098330303	80-04-30	7.1	15.0	3.0	310	76	96	16	22	.5	11
	80-09-05	7.2	13.5	1.0	300	18	93	16	20	.5	11
404850098293701	80-05-01	7.0	13.5	6.8	300	72	96	15	22	.6	12
	80-09-09	7.3	12.5	7.3	290	61	90	16	27	.7	13
404712098421301	80-05-01	7.1	14.0	1.1	440	200	140	23	31	.6	15
	80-09-09	7.3	12.5	--	390	170	120	22	26	.6	15
405120098362901	80-05-01	7.0	14.0	7.2	380	130	120	20	32	.7	13
	80-09-08	7.0	13.0	8.6	380	110	120	19	35	.8	16
404817098391301	80-05-01	7.0	13.5	7.8	500	290	160	25	48	.9	20
	80-06-17	7.0	--	--	--	--	--	--	--	--	--
	80-07-14	7.4	--	--	--	--	--	--	--	--	--
	80-08-13	7.2	--	--	--	--	--	--	--	--	--
	80-09-08	7.2	13.5	6.7	380	130	120	19	40	.9	19
404817098391302	80-05-01	7.1	13.5	6.4	420	130	130	24	39	.8	14

STATION NUMBER	DATE OF SAMPLE	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
					GOSPER						
403743099395301	80-08-13	180	120	24	.3	48	--	465	.63	--	4.9
					GREELEY						
413838098181901	80-07-10	280	17	2.3	.5	46	--	361	.49	--	1.6
413844098204501	80-07-10	250	7.9	1.2	.5	45	--	317	.43	--	1.6
414120098213702	80-07-09	160	4.7	1.4	.4	48	--	232	.32	--	1.8
414159098275701	80-07-09	160	2.8	.8	.4	45	--	228	.31	--	3.3
414140098243801	80-07-09	160	5.2	.5	.5	53	--	223	.30	--	.05
					HALL						
404659098395601	80-05-01	110	310	27	--	--	--	--	--	25	--
	80-09-08	130	300	39	--	--	--	--	--	25	--
404659098395602	80-05-01	110	320	14	--	--	--	--	--	14	--
	80-09-08	110	320	15	--	--	--	--	--	13	--
404620098425601	80-05-02	220	220	19	--	--	--	--	--	.60	--
	80-09-08	230	220	22	--	--	--	--	--	2.5	--
405125098271901	80-04-30	170	51	15	--	--	--	--	--	11	--
	80-09-05	160	57	22	--	--	--	--	--	7.9	--
405212098293701	80-04-30	340	120	77	--	--	--	--	--	67	--
	80-09-05	--	130	65	--	--	--	--	--	62	--
405212098293702	80-04-30	310	120	15	--	--	--	--	--	17	--
	80-09-05	300	120	17	--	--	--	--	--	27	--
405212098293703	80-04-30	330	120	12	--	--	--	--	--	.06	--
	80-09-05	250	150	13	--	--	--	--	--	4.8	--
405001098315501	80-05-01	--	40	12	--	--	--	--	--	21	--
	80-09-05	210	40	12	--	--	--	--	--	23	--
405027098330301	80-04-30	310	93	170	--	--	--	--	--	50	--
	80-09-05	320	110	65	--	--	--	--	--	--	--
405027098330302	80-04-30	230	110	29	--	--	--	--	--	24	--
	80-09-05	220	77	25	--	--	--	--	--	24	--
405027098330303	80-04-30	230	61	23	--	--	--	--	--	15	--
	80-09-05	280	62	16	--	--	--	--	--	12	--
404850098293701	80-05-01	230	68	9.8	--	--	--	--	--	15	--
	80-09-09	230	76	11	--	--	--	--	--	19	--
404712098421301	80-05-01	240	200	29	--	--	--	--	--	6.2	--
	80-09-09	220	210	29	--	--	--	--	--	5.0	--
405120098362901	80-05-01	250	91	17	--	--	--	--	--	18	--
	80-09-08	270	100	22	--	--	--	--	--	23	--
404817098391301	80-05-01	210	100	19	--	--	--	--	--	57	--
	80-06-17	--	--	--	--	--	--	--	--	54	--
	80-07-14	--	--	--	--	--	--	--	--	18	--
	80-08-13	--	--	--	--	--	--	--	--	18	--
	80-09-08	250	110	21	--	--	--	--	--	34	--
404817098391302	80-05-01	290	140	16	--	--	--	--	--	19	--

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

STATION NUMBER	DATE OF SAMPLE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)
					GOSPER					
403743099395301	80-08-13	--	--	--	--	--	140	<10	3	--
					GREELEY					
413838098181901	80-07-10	--	--	--	--	--	--	--	--	--
413844098204501	80-07-10	--	--	--	--	--	--	--	--	--
414120098213702	80-07-09	--	--	--	--	--	--	--	--	--
414159098275701	80-07-09	--	--	--	--	--	--	--	--	--
414140098243801	80-07-09	--	--	--	--	--	--	--	--	--
					HALL					
404659098395601	80-05-01	.010	1.1	1.1	26	--	--	--	--	4.2
	80-09-08	.030	.41	.44	25	--	--	--	--	5.7
404659098395602	80-05-01	.010	.40	.41	14	--	--	--	--	5.0
	80-09-08	.040	2.3	2.3	15	--	--	--	--	2.1
404620098425601	80-05-02	.010	.59	.60	1.2	--	--	--	--	4.1
	80-09-08	.030	.43	.46	3.0	--	--	--	--	4.1
405125098271901	80-04-30	.010	1.2	1.2	12	--	--	--	--	--
	80-09-05	.000	.49	.49	8.4	--	--	--	--	2.8
405212098293701	80-04-30	.740	2.7	3.4	70	--	--	--	--	14
	80-09-05	.000	2.2	2.2	64	--	--	--	--	--
405212098293702	80-04-30	.010	.92	.93	18	--	--	--	--	5.2
	80-09-05	.000	.87	.87	28	--	--	--	--	26
405212098293703	80-04-30	.010	.42	.43	.49	--	--	--	--	9.6
	80-09-05	.000	.54	.54	5.3	--	--	--	--	--
405001098315501	80-05-01	.000	.68	.68	22	--	--	--	--	8.5
	80-09-05	.000	.77	.77	24	--	--	--	--	2.6
405027098330301	80-04-30	.000	1.8	1.8	52	--	--	--	--	9.6
	80-09-05	.000	.37	.37	--	--	--	--	--	3.6
405027098330302	80-04-30	.000	1.3	1.3	25	--	--	--	--	5.9
	80-09-05	.000	1.0	1.0	25	--	--	--	--	10
405027098330303	80-04-30	.000	.98	.98	16	--	--	--	--	--
	80-09-05	.000	1.2	1.2	13	--	--	--	--	2.9
404850098293701	80-05-01	.000	1.6	1.6	17	--	--	--	--	5.6
	80-09-09	.020	.42	.44	19	--	--	--	--	5.2
404712098421301	80-05-01	.000	.93	.93	7.1	--	--	--	--	5.2
	80-09-09	.040	1.3	1.3	6.3	--	--	--	--	5.1
405120098362901	80-05-01	.040	--	--	--	--	--	--	--	8.4
	80-09-08	.020	1.3	1.3	24	--	--	--	--	9.2
404817098391301	80-05-01	.040	2.1	2.1	59	--	--	--	--	--
	80-06-17	.000	1.3	1.3	55	--	--	--	--	--
	80-07-14	.010	1.1	1.1	19	--	--	--	--	--
	80-08-13	.000	1.1	1.1	19	--	--	--	--	--
	80-09-08	.030	1.2	1.2	35	--	--	--	--	7.5
404817098391302	80-05-01	.020	1.1	1.1	20	--	--	--	--	17

STATION NUMBER	LOCAL IDENT- I- FIER	LAT- I- TUDF	LONG- I- TUDE	SEQ. NO.	GEO- LOGIC UNIT	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)
HALL									
404817098391302	10N 12W27DBC 2	40 48 17	098 39 13	02	112SDGV	80-06-17	--	52	993
					112SDGV	80-07-14	--	52	1010
					112SDGV	80-08-13	1010	52	847
					112SDGV	80-09-08	1325	52	995
404817098391303	10N 12W27DBC 3	40 48 17	098 39 13	03	112SDGV	80-05-01	1220	68	972
					112SDGV	80-06-17	--	68	950
					112SDGV	80-07-14	--	68	1110
					112SDGV	80-08-13	1015	68	929
					112SDGV	80-09-08	1340	68	945
404850098395601	10N 12W28AAA 1	40 48 50	098 39 56	01	112SDGV	80-05-01	1515	63	990
					112SDGV	80-09-08	1405	63	1060
405408098262801	11N 10W21DCD 1	40 54 08	098 26 28	01	112SDGV	80-04-30	0840	60	410
					112SDGV	80-09-04	1525	60	405
405329098362901	11N 10W29DBD 1	40 53 29	098 36 29	01	112SDGV	80-04-29	1430	26	395
					112SDGV	80-06-17	--	26	385
					112SDGV	80-07-14	--	26	421
					112SDGV	80-08-13	0935	26	368
					112SDGV	80-09-04	1410	26	358
405329098362902	11N 10W29DBD 2	40 53 29	098 36 29	02	112SDGV	80-04-29	1500	41	406
					112SDGV	80-06-17	--	41	385
					112SDGV	80-07-14	--	41	413
					112SDGV	80-08-13	0935	41	364
					112SDGV	80-09-04	1435	41	373
405329098362903	11N 10W29DBD 3	40 53 29	098 36 29	03	112SDGV	80-04-29	1535	57	295
					112SDGV	80-06-17	--	57	378
					112SDGV	80-07-14	--	57	389
					112SDGV	80-08-13	0940	57	378
					112SDGV	80-09-04	1455	57	388
405250098285001	11N 10W32BCC 1	40 52 50	098 28 50	01	112SDGV	80-04-30	0920	60	964
					112SDGV	80-09-04	1555	60	955
405225098314601	11N 11W35CCC 1	40 52 25	098 31 46	01	112SDGV	80-04-30	1440	64	724
					112SDGV	80-09-05	1030	64	667
HAMILTON									
404633098091202	9N 7W 6DAD 2	40 46 33	098 09 12	02	112SDGV	80-08-05	--	190	626
405147098004501	10N 6W 4CB 1	40 51 47	098 00 45	01	112SDGV	80-08-05	--	248	501
HARLAN									
400845099155501	2N 17W17BA 1	40 08 45	099 15 55	01	112SDGV	80-08-14	1315	206	512
401449099291301	3N 19W 8AB 1	40 14 49	099 29 13	01	1210GLL	80-08-13	1700	234	525
401745099185201	4N 18W23DD 1	40 17 45	099 18 52	01	112SDGV	80-08-14	1000	195	541
401620099361601	4N 20W32BD 1	40 16 20	099 36 16	01	1210GLL	80-08-13	1600	199	510
HOLT									
420955098373901	25N 11W 5CD 1	42 09 55	098 37 39	01	112SDHL	80-08-07	0945	175	373
420652098500201	25N 13W28AD 1	42 06 52	098 50 02	01	112SDHL	80-08-07	1130	270	245

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

STATION NUMBER	DATE OF SAMPLE	PH FIELD (UNITS) (00400)	TEMPERATURE, WATER (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)
					HALL						
404817098391302	80-06-17	7.0	--	--	--	--	--	--	--	--	--
	80-07-14	7.6	--	--	--	--	--	--	--	--	--
	80-08-13	7.3	--	--	--	--	--	--	--	--	--
	80-09-08	7.2	13.5	--	420	120	130	23	39	.8	15
404817098391303	80-05-01	7.1	14.0	4.5	420	110	130	23	40	.9	12
	80-06-17	7.0	--	--	--	--	--	--	--	--	--
	80-07-14	7.6	--	--	--	--	--	--	--	--	--
	80-08-13	7.3	--	--	--	--	--	--	--	--	--
	80-09-08	7.2	13.5	4.1	410	110	130	21	28	.6	13
404850098395601	80-05-01	6.5	13.0	4.8	390	160	120	21	52	1.2	18
	80-09-08	8.4	14.0	3.7	310	82	97	17	75	1.8	2.0
405408098262801	80-04-30	7.1	13.0	4.3	150	0	50	7.1	23	.8	8.8
	80-09-04	7.4	13.5	8.2	140	0	45	6.9	26	1.0	8.8
405329098362901	80-04-29	6.9	15.5	1.3	160	45	50	7.4	14	.5	10
	80-06-17	7.1	--	--	--	--	--	--	--	--	--
	80-07-14	7.6	--	--	--	--	--	--	--	--	--
	80-08-13	7.3	--	--	--	--	--	--	--	--	--
	80-09-04	7.4	13.0	7.1	130	130	41	7.0	18	.7	11
405329098362902	80-04-29	6.8	16.5	.6	160	25	50	7.4	13	.5	9.5
	80-06-17	6.8	--	--	--	--	--	--	--	--	--
	80-07-14	7.6	--	--	--	--	--	--	--	--	--
	80-08-13	7.2	--	--	--	--	--	--	--	--	--
	80-09-04	7.2	13.0	4.6	150	19	48	7.1	16	.6	11
405329098362903	80-04-29	6.9	15.5	.4	160	39	52	7.0	9.9	.3	8.8
	80-06-17	6.8	--	--	--	--	--	--	--	--	--
	80-07-14	7.6	--	--	--	--	--	--	--	--	--
	80-08-13	7.2	--	--	--	--	--	--	--	--	--
	80-09-04	7.3	13.0	.2	170	45	54	7.3	11	.4	9.2
405250098285001	80-04-30	6.8	13.5	1.2	370	84	120	18	50	1.1	26
	80-09-04	7.2	12.5	--	350	33	110	19	48	1.1	32
405225098314601	80-04-30	6.9	14.0	4.1	280	44	89	15	32	.8	11
	80-09-05	7.1	12.5	4.8	260	42	82	14	26	.7	12
					HAMILTON						
404633098091202	80-08-05	7.6	13.5	--	260	75	79	14	28	.8	6.0
405147098004501	80-08-05	7.6	13.0	--	200	36	62	10	22	.7	5.5
					HARLAN						
400845099155501	80-08-14	7.0	14.5	--	250	45	75	14	9.6	.3	9.0
401449099291301	80-08-13	7.3	15.0	--	250	7	76	14	7.8	.2	9.7
401745099185201	80-08-14	7.7	15.0	--	250	9	80	12	7.7	.2	9.1
401620099361601	80-08-13	7.1	15.0	--	240	0	71	15	7.8	.2	9.1
					HOLT						
420955098373901	80-08-07	7.2	13.5	--	150	78	51	4.4	7.0	.3	5.2
420652098500201	80-08-07	7.2	13.0	--	72	47	23	3.5	8.4	.4	4.0

STATION NUMBER	DATE OF SAMPLE	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)
HALL											
404817098391302	80-06-17	--	--	--	--	--	--	--	--	18	--
	80-07-14	--	--	--	--	--	--	--	--	21	--
	80-08-13	--	--	--	--	--	--	--	--	23	--
	80-09-08	300	150	18	--	--	--	--	--	22	--
404817098391303	80-05-01	310	130	15	--	--	--	--	--	16	--
	80-06-17	--	--	--	--	--	--	--	--	15	--
	80-07-14	--	--	--	--	--	--	--	--	66	--
	80-08-13	--	--	--	--	--	--	--	--	18	--
	80-09-08	300	120	16	--	--	--	--	--	17	--
404850098395601	80-05-01	230	130	89	--	--	--	--	--	6.1	--
	80-09-08	230	77	110	--	--	--	--	--	7.8	--
405408098262801	80-04-30	160	37	3.5	--	--	--	--	--	3.4	--
	80-09-04	160	33	3.8	--	--	--	--	--	3.8	--
405329098362901	80-04-29	140	42	4.6	--	--	--	--	--	1.1	--
	80-06-17	--	--	--	--	--	--	--	--	1.2	--
	80-07-14	--	--	--	--	--	--	--	--	3.2	--
	80-08-13	--	--	--	--	--	--	--	--	2.2	--
	80-09-04	--	14	3.3	--	--	--	--	--	2.4	--
405329098362902	80-04-29	130	54	6.8	--	--	--	--	--	1.3	--
	80-06-17	--	--	--	--	--	--	--	--	1.1	--
	80-07-14	--	--	--	--	--	--	--	--	2.0	--
	80-08-13	--	--	--	--	--	--	--	--	1.7	--
	80-09-04	130	36	4.8	--	--	--	--	--	1.7	--
405329098362903	80-04-29	120	51	6.9	--	--	--	--	--	.12	--
	80-06-17	--	--	--	--	--	--	--	--	.03	--
	80-07-14	--	--	--	--	--	--	--	--	.04	--
	80-08-13	--	--	--	--	--	--	--	--	.00	--
	80-09-04	120	55	7.0	--	--	--	--	--	.00	--
405250098285001	80-04-30	290	160	28	--	--	--	--	--	9.7	--
	80-09-04	320	130	21	--	--	--	--	--	6.8	--
405225098314601	80-04-30	240	51	11	--	--	--	--	--	17	--
	80-09-05	220	51	11	--	--	--	--	--	12	--
HAMILTON											
404633098091202	80-08-05	180	100	13	.5	29	--	386	.53	--	1.6
405147098004501	80-08-05	160	48	13	.6	27	--	301	.41	--	3.7
HARLAN											
400845099155501	80-08-14	200	21	17	.4	56	--	341	.46	--	4.3
401449099291301	80-08-13	240	23	6.8	.3	56	--	357	.49	--	4.2
401745099185201	80-08-14	240	21	7.3	.2	50	--	352	.48	--	4.7
401620099361601	80-08-13	240	21	5.0	.3	57	--	342	.47	--	2.5
HOLT											
420955098373901	80-08-07	67	3.4	1.3	.2	53	--	290	.39	--	28
420652098500201	80-08-07	25	3.8	1.9	.2	67	--	202	.27	--	17

STATION NUMBER	DATE OF SAMPLE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)
				HALL						
404817098391302	80-06-17	.000	.67	.67	19	--	--	--	--	--
	80-07-14	.010	1.8	1.8	23	--	--	--	--	--
	80-08-13	.000	.81	.81	24	--	--	--	--	--
	80-09-08	.020	1.2	1.2	23	--	--	--	--	21
404817098391303	80-05-01	.000	1.4	1.4	17	--	--	--	--	8.4
	80-06-17	.000	.60	.60	16	--	--	--	--	--
	80-07-14	.040	.12	.16	66	--	--	--	--	--
	80-08-13	.020	1.2	1.2	19	--	--	--	--	--
	80-09-08	.030	1.1	1.1	18	--	--	--	--	8.2
404850098395601	80-05-01	.020	1.3	1.3	7.4	--	--	--	--	--
	80-09-08	.030	1.3	1.3	9.1	--	--	--	--	7.8
405408098262801	80-04-30	.010	.89	.90	4.3	--	--	--	--	2.8
	80-09-04	.000	.72	.72	4.5	--	--	--	--	--
405329098362901	80-04-29	.010	.48	.49	1.6	--	--	--	--	13
	80-06-17	.000	1.6	1.6	2.8	--	--	--	--	--
	80-07-14	.010	1.1	1.1	4.3	--	--	--	--	--
	80-08-13	.010	.82	.83	3.0	--	--	--	--	--
	80-09-04	.060	.62	.68	3.1	--	--	--	--	11
405329098362902	80-04-29	.000	.56	.56	1.9	--	--	--	--	--
	80-06-17	.000	1.4	1.4	2.5	--	--	--	--	--
	80-07-14	.000	.37	.37	2.4	--	--	--	--	--
	80-08-13	.000	.39	.39	2.1	--	--	--	--	--
	80-09-04	.070	.42	.49	2.2	--	--	--	--	5.7
405329098362903	80-04-29	.000	.33	.33	.45	--	--	--	--	2.7
	80-06-17	.000	.23	.23	.26	--	--	--	--	--
	80-07-14	.010	.31	.32	.36	--	--	--	--	--
	80-08-13	.000	.39	.39	.39	--	--	--	--	--
	80-09-04	.050	.58	.63	.63	--	--	--	--	1.6
405250098285001	80-04-30	.030	1.4	1.4	11	--	--	--	--	5.3
	80-09-04	.000	.77	.77	7.6	--	--	--	--	--
405225098314601	80-04-30	.000	1.3	1.3	18	--	--	--	--	3.5
	80-09-05	.000	1.0	1.0	13	--	--	--	--	7.7
				HAMILTON						
404633098091202	80-08-05	--	--	--	--	--	80	80	930	--
405147098004501	80-08-05	--	--	--	--	--	60	<10	<1	--
				HARLAN						
400845099155501	80-08-14	--	--	--	--	--	150	<10	<1	--
401449099291301	80-08-13	--	--	--	--	--	50	10	1	--
401745099185201	80-08-14	--	--	--	--	--	80	<10	<1	--
401620099361601	80-08-13	--	--	--	--	--	140	<10	1	--
				HOLT						
420955098373901	80-08-07	--	--	--	--	--	140	50	30	--
420652098500201	80-08-07	--	--	--	--	--	130	<10	60	--

STATION NUMBER	LOCAL IDENTIFIER	LATITUDE	LONGITUDE	SEQ. NO.	GEOLOGIC UNIT	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)
			HOWARD						
410711098330701	13N 11W11BA 1	41 07 11	098 33 07	01	121OGLL	79-10-10	--	144	600
					121OGLL	80-06-05	1150	144	635
					121OGLL	80-08-14	1215	144	755
410443098425501	13N 12W20DC 1	41 04 43	098 42 55	01	121OGLL	79-10-10	--	268	475
					121OGLL	80-06-05	1345	268	510
					121OGLL	80-08-13	1145	268	505
411303098373901	14N 11W 6BAC 1	41 13 03	098 37 39	01	121OGLL	79-10-10	--	150	545
					121OGLL	80-06-04	1630	150	559
					121OGLL	80-08-13	1645	150	557
411705098341701	15N 11W10CBA 1	41 17 05	098 34 17	01	121OGLL	79-10-11	--	150	565
					121OGLL	80-06-05	0830	150	650
					121OGLL	80-08-14	0950	150	600
			JEFFERSON						
400422097195901	1N 1E 8AA 1	40 04 22	097 19 59	01	112SDGV	80-08-21	1000	--	612
400223097011901	1N 4E19BD 1	40 02 23	097 01 19	01	211DKOT	80-08-21	0915	--	365
400751097122001	2N 2E21AB 1	40 07 51	097 12 20	01	112SDGV	80-08-21	0815	--	472
			KEARNEY						
402351098463401	5N 13W15CO 1	40 23 51	098 46 34	01	112SDGV	80-08-25	1600	234	545
402533099010201	5N 15W 4DC 1	40 25 33	099 01 02	01	112SDGV	80-08-25	0930	364	627
402235099041401	5N 16W25AD 1	40 22 35	099 04 14	01	112SDGV	80-08-26	1000	185	848
403055098570001	6N 14W 6CB 1	40 30 55	098 57 00	01	--	80-08-20	1145	--	980
402621098540501	6N 14W33DC 1	40 26 21	098 54 05	01	112SDGV	80-08-25	1430	253	568
402847099074801	6N 16W21AB 1	40 28 47	099 07 48	01	112SDGV	80-08-27	1015	165	1030
403208098463401	7N 13W34BD 1	40 32 08	098 46 34	01	112SDGV	80-08-25	1200	205	462
403242099091301	7N 16W29CA 1	40 32 42	099 09 13	01	112SDGV	80-08-27	0930	170	1040
			MERRICK						
410316098085601	13N 7W32BCD 1	41 03 16	098 08 56	01	112SDGV	80-04-29	1130	15	1020
					112SDGV	80-09-04	1150	15	915
410316098085602	13N 7W32BCD 2	41 03 16	098 08 56	02	112SDGV	80-04-29	1215	22	972
					112SDGV	80-09-04	1210	22	950
410316098085603	13N 7W32BCD 3	41 03 16	098 08 56	03	112SDGV	80-04-29	1240	42	735
					112SDGV	80-09-04	1230	42	815
			NANCE						
412328097573101	16N 6W 1BD 1	41 23 28	097 57 31	01	112SDGV	80-07-23	0930	112	510
412242098010101	16N 6W 9BB 1	41 22 42	098 01 01	01	112SDGV	80-07-22	0830	210	580
412731097455501	17N 4W10CA 1	41 27 31	097 45 55	01	112SDGV	80-07-22	1500	91	680
412822097501501	17N 5W 1DB 1	41 28 22	097 50 15	01	112SDGV	80-07-23	1030	213	520
412704097541701	17N 5W16BB 1	41 27 04	097 54 17	01	112SDGV	80-07-22	1130	330	495
412453097541701	17N 5W28CB 1	41 24 53	097 54 17	01	112SDGV	80-07-22	1415	170	552
412453097545201	17N 5W29DB 1	41 24 53	097 54 52	01	112SDGV	80-07-22	1400	141	560
412809097565301	17N 6W 1DD 1	41 28 09	097 56 53	01	112SDGV	80-07-23	0900	262	472
412730098025601	17N 6W 7DB 1	41 27 30	098 02 56	01	112SDGV	80-07-21	1515	242	468
412704098031301	17N 6W18BA 1	41 27 04	098 03 13	01	112SDGV	80-07-21	1500	162	592
412625098033001	17N 6W18CC 1	41 26 25	098 03 30	01	112SDGV	80-07-22	0900	74	620

STATION NUMBER	DATE OF SAMPLE	PH FIELD (UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)
HOWARD											
410711098330701	79-10-10	7.1	14.5	--	290	11	90	16	15	.4	8.6
	80-06-05	7.0	14.0	--	290	0	90	17	18	.5	8.3
	80-08-14	7.4	14.5	--	360	31	120	15	12	.3	9.3
410443098425501	79-10-10	7.5	14.0	--	230	3	77	9.8	10	.3	6.7
	80-06-05	7.1	14.5	--	230	6	74	10	11	.3	6.1
	80-08-13	7.4	13.5	--	220	1	73	9.5	10	.3	5.8
411303098373901	79-10-10	7.0	14.5	--	280	0	91	12	8.5	.2	7.4
	80-06-04	7.0	13.5	--	250	50	82	11	10	.3	6.5
	80-08-13	7.5	14.5	--	270	0	87	12	8.4	.2	6.6
411705098341701	79-10-11	7.1	13.5	--	280	3	92	13	12	.3	8.7
	80-06-05	7.0	13.5	--	290	0	91	14	14	.4	7.9
	80-08-14	7.3	13.0	--	280	8	90	13	12	.3	7.4
JEFFERSON											
400422097195901	80-08-21	7.4	14.5	--	260	0	89	8.3	27	.7	2.5
400223097011901	80-08-21	6.2	15.0	--	120	33	38	6.8	25	1.0	2.4
400751097122001	80-08-21	6.0	18.0	--	210	42	71	8.4	18	.5	3.2
KEARNEY											
402351098463401	80-08-25	7.5	20.0	--	240	18	77	11	22	.6	9.2
402533099010201	80-08-25	7.2	14.0	--	270	28	89	11	25	.7	12
402235099041401	80-08-26	7.2	14.0	--	370	110	120	16	27	.6	14
403055098570001	80-08-20	7.2	14.0	--	390	140	130	15	46	1.0	15
402621098540501	80-08-25	7.3	15.0	--	240	0	79	11	22	.6	8.9
402847099074801	80-08-27	7.1	15.0	--	430	210	140	20	56	1.2	15
403208098463401	80-08-25	7.6	18.0	--	190	0	62	7.9	25	.8	9.6
403242099091301	80-08-27	7.2	15.0	--	430	180	140	20	60	1.3	12
MERRICK											
410316098085601	80-04-29	7.7	11.5	.2	390	120	120	22	68	1.5	14
	80-09-04	7.2	15.5	2.2	330	62	100	20	67	1.6	13
410316098085602	80-04-29	8.0	15.0	.2	350	59	110	18	62	1.4	16
	80-09-04	7.2	14.0	.2	350	79	110	18	66	1.5	15
410316098085603	80-04-29	6.7	15.0	.2	290	84	93	15	35	.9	10
	80-09-04	7.1	14.0	.1	320	94	100	18	41	1.0	11
NANCE											
412328097573101	80-07-23	7.2	15.5	--	240	0	80	10	9.2	.3	4.0
412242098010101	80-07-22	6.8	15.0	--	290	0	94	13	8.4	.2	5.3
412731097455501	80-07-22	7.2	15.0	--	300	0	98	13	19	.5	5.8
412822097501501	80-07-23	7.2	14.5	--	260	0	84	11	8.8	.2	4.0
412704097541701	80-07-22	7.3	16.0	--	230	0	77	9.6	10	.3	2.6
412453097541701	80-07-22	7.2	14.5	--	260	2	85	12	9.3	.3	4.7
412453097545201	80-07-22	7.4	15.0	--	260	0	84	12	9.9	.3	4.1
412809097565301	80-07-23	7.2	15.0	--	230	0	74	11	9.0	.3	4.9
412730098025601	80-07-21	7.3	15.5	--	280	1	91	13	12	.3	10
412704098031301	80-07-21	7.2	16.0	--	280	10	89	14	9.7	.3	8.5
412625098033001	80-07-22	7.1	15.0	--	280	0	87	16	16	.4	11

STATION NUMBER	DATE OF SAMPLE	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
					HOWARD						
410711098330701	79-10-10	280	27	11	.3	61	391	400	.53	--	.63
	80-06-05	340	20	10	.2	60	--	430	.58	--	.36
	80-08-14	330	51	14	.2	54	--	475	.65	--	.15
410443098425501	79-10-10	230	20	4.6	.3	60	336	332	.46	--	1.3
	80-06-05	220	17	4.5	.2	59	--	319	.43	--	1.1
	80-08-13	220	20	4.4	.3	58	--	319	.43	--	1.3
411303098373901	79-10-10	280	21	1.9	.2	64	369	376	.50	--	.37
	80-06-04	200	17	18	.2	63	--	329	.45	--	.23
	80-08-13	270	17	2.2	.2	61	--	359	.49	--	.43
411705098341701	79-10-11	280	27	5.1	.3	62	383	397	.52	--	1.9
	80-06-05	290	31	6.1	.2	59	--	406	.55	--	2.0
	80-08-14	270	28	5.8	.2	58	--	387	.53	--	2.4
					JEFFERSON						
400422097195901	80-08-21	260	15	17	.2	39	--	377	.51	--	5.0
400223097011901	80-08-21	90	42	11	.2	29	--	242	.33	--	7.6
400751097122001	80-08-21	170	43	11	.4	33	--	312	.42	--	4.8
					KEARNEY						
402351098463401	80-08-25	220	53	9.2	.3	35	--	349	.47	--	.00
402533099010201	80-08-25	240	77	9.8	.4	29	--	398	.54	--	.00
402235099041401	80-08-26	260	130	26	.3	33	--	523	.71	--	--
403055098570001	80-08-20	250	130	52	.4	24	--	607	.83	--	9.9
402621098540501	80-08-25	250	45	6.3	.3	34	--	358	.49	--	.08
402847099074801	80-08-27	220	260	37	.4	32	--	713	.97	--	4.5
403208098463401	80-08-25	210	33	3.5	.3	24	--	292	.40	--	.00
403242099091301	80-08-27	250	220	43	.4	36	--	726	.99	--	10
					MERRICK						
410316098085601	80-04-29	270	230	15	--	--	--	--	--	11	--
	80-09-04	270	--	3.3	--	--	--	--	--	8.5	--
410316098085602	80-04-29	290	180	11	--	--	--	--	--	6.8	--
	80-09-04	270	160	10	--	--	--	--	--	2.3	--
410316098085603	80-04-29	210	140	8.7	--	--	--	--	--	4.6	--
	80-09-04	230	150	11	--	--	--	--	--	3.3	--
					NANCE						
412328097573101	80-07-23	260	9.6	2.6	.3	53	--	329	.45	--	.94
412242098010101	80-07-22	290	20	3.4	.3	57	--	385	.52	--	2.1
412731097455501	80-07-22	310	30	3.4	.3	51	--	412	.56	--	1.1
412822097501501	80-07-23	260	12	1.8	.2	53	--	340	.46	--	2.0
412704097541701	80-07-22	240	14	3.1	.2	49	--	317	.43	--	1.7
412453097541701	80-07-22	260	17	2.8	.3	54	--	345	.47	--	.84
412453097545201	80-07-22	270	18	3.2	.3	53	--	352	.48	--	1.1
412809097565301	80-07-23	240	13	2.1	--	58	--	322	.44	--	.99
412730098025601	80-07-21	280	42	2.6	.3	55	--	397	.54	--	.59
412704098031301	80-07-21	270	42	3.3	.3	57	--	389	.53	--	.68
412625098033001	80-07-22	310	26	2.2	.4	57	--	404	.55	--	.41

CHEMICAL ANALYSES OF GROUND WATER IN NEBRASKA

STATION NUMBER	DATE OF SAMPLE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)
					HOWARD					
410711098330701	79-10-10	--	--	--	--	.040	--	--	--	--
	80-06-05	--	--	--	--	--	--	--	--	--
	80-08-14	--	--	--	--	--	--	--	--	--
410443098425501	79-10-10	--	--	--	--	.030	--	--	--	--
	80-06-05	--	--	--	--	--	--	--	--	--
	80-08-13	--	--	--	--	--	--	--	--	--
411303098373901	79-10-10	--	--	--	--	.020	--	--	--	--
	80-06-04	--	--	--	--	--	--	--	--	--
	80-08-13	--	--	--	--	--	--	--	--	--
411705098341701	79-10-11	--	--	--	--	.090	--	--	--	--
	80-06-05	--	--	--	--	--	--	--	--	--
	80-08-14	--	--	--	--	--	--	--	--	--
					JEFFERSON					
400422097195901	80-08-21	--	--	--	--	--	60	<10	<1	--
400223097011901	80-08-21	--	--	--	--	--	50	50	3	--
400751097122001	80-08-21	--	--	--	--	--	50	<10	<1	--
					KEARNEY					
402351098463401	80-08-25	--	--	--	--	--	40	40	340	--
402533099010201	80-08-25	--	--	--	--	--	60	500	200	--
402235099041401	80-08-26	--	--	--	--	--	70	<10	30	--
403055098570001	80-08-20	--	--	--	--	--	60	150	70	--
402621098540501	80-08-25	--	--	--	--	--	90	90	350	--
402847099074801	80-08-27	--	--	--	--	--	100	40	40	--
403208098463401	80-08-25	--	--	--	--	--	80	30	320	--
403242099091301	80-08-27	--	--	--	--	--	150	<10	<1	--
					MERRICK					
410316098085601	80-04-29	.030	1.2	1.2	12	--	--	--	--	3.9
	80-09-04	.050	.57	.62	9.1	--	--	--	--	8.0
410316098085602	80-04-29	.000	1.2	1.2	8.0	--	--	--	--	8.6
	80-09-04	.050	1.3	1.3	3.6	--	--	--	--	13
410316098085603	80-04-29	.000	.51	.51	5.1	--	--	--	--	7.8
	80-09-04	.070	.43	.50	3.8	--	--	--	--	5.2
					NANCE					
412328097573101	80-07-23	--	--	--	--	--	--	--	--	--
412242098010101	80-07-22	--	--	--	--	--	--	--	--	--
412731097455501	80-07-22	--	--	--	--	--	--	--	--	--
412822097501501	80-07-23	--	--	--	--	--	--	--	--	--
412704097541701	80-07-22	--	--	--	--	--	--	--	--	--
412453097541701	80-07-22	--	--	--	--	--	--	--	--	--
412453097545201	80-07-22	--	--	--	--	--	--	--	--	--
412809097565301	80-07-23	--	--	--	--	--	--	--	--	--
412730098025601	80-07-21	--	--	--	--	--	--	--	--	--
412704098031301	80-07-21	--	--	--	--	--	--	--	--	--
412625098033001	80-07-22	--	--	--	--	--	--	--	--	--

STATION NUMBER	LOCAL IDENT-I-FIER	LAT-I-TUDE	LONG-I-TUDE	SEQ. NO.	GEO-LOGIC UNIT	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)
			NANCE						
412546097581901	17N 6W23DB 1	41 25 46	097 58 19	01	112SDGV	80-07-22	1200	254	590
412520098020401	17N 6W29BA 1	41 25 20	098 02 04	01	112SDGV	80-07-23	0800	117	280
412843098092001	17N 7W 5BBC 1	41 28 43	098 09 20	01	112SDGV	80-07-21	1230	236	520
412539098080801	17N 7W21CBD 1	41 25 39	098 08 08	01	112SDGV	80-07-21	1400	--	550
412518098060601	17N 7W27AA 1	41 25 18	098 06 06	01	112SDGV	80-07-21	1415	216	630
412622098104201	17N 8W13DD 1	41 26 22	098 10 42	01	112SDGV	80-07-21	1330	218	522
412617098103501	17N 8W26ABD 1	41 26 17	098 10 35	01	112SDGV	80-07-21	1300	289	485
413125097492301	18N 4W19BA 1	41 31 25	097 49 23	01	112SDGV	80-07-22	1545	143	495
412953097510701	18N 5W26DD 1	41 29 53	097 51 07	01	112SDGV	80-07-23	1115	167	515
413032097525101	18N 5W27BA 1	41 30 32	097 52 51	01	112SDGV	80-07-22	1030	292	463
412934097525901	18N 5W34BD 1	41 29 34	097 52 59	01	112SDGV	80-07-23	1145	333	472
412908097525201	18N 5W34DD 1	41 29 08	097 52 52	01	112SDGV	80-07-22	1100	247	580
412940098005501	18N 6W33BA 1	41 29 40	098 00 55	01	112SDGV	80-07-21	1600	362	462
412901097581901	18N 6W35DC 1	41 29 01	097 58 19	01	112SDGV	80-07-22	0930	265	450
			NUCKOLLS						
400843097522601	2N 5W15BBDB1	40 08 43	097 52 26	01	112SDGV	80-08-20	1430	180	640
401458098035801	3N 7W 1CC 1	40 14 58	098 03 58	01	211NBRR	80-08-20	1600	163	629
401735098155201	4N 8W19DC 1	40 17 35	098 15 52	01	121OGLL	80-08-20	1500	205	570
			PHELPS						
402136099130901	5N 17W34AD 1	40 21 36	099 13 09	01	112SDGV	80-08-28	--	305	571
402143099193301	5N 18W35AD 1	40 21 43	099 19 33	01	112SDGV	80-08-27	1400	320	532
402155099284001	5N 19W28DD 1	40 21 55	099 28 40	01	112SDGV	80-08-27	1530	190	529
402835099301401	6N 19W20BD 1	40 28 35	099 30 14	01	112SDGV	80-08-28	0830	243	624
402835099293401	6N 19W21BC 1	40 28 35	099 29 34	01	112SDGV	80-08-28	0915	346	542
403151099312001	7N 19W31CA 1	40 31 51	099 31 20	01	112SDGV	80-08-28	--	239	788
403151099283201	7N 19W33DA 1	40 31 51	099 28 32	01	112SDGV	80-08-28	--	183	734
403545099370101	7N 20W 8BA 1	40 35 45	099 37 01	01	112SDGV	80-08-28	1100	260	701
403145099381002	7N 20W31CA 2	40 31 45	099 38 10	02	112SDGV	80-08-28	1030	260	769
			POLK						
410434097471102	13N 4W21CCD 2	41 04 34	097 47 11	02	112SDGV	80-08-04	--	150	631
411145097254601	14N 1W 9DAC 1	41 11 45	097 25 46	01	112SDGV	80-08-04	--	270	545
			SALINE						
403902097064901	8N 3E20BAD 1	40 39 02	097 06 49	01	112SDGV	80-08-06	--	190	521
			SEWARD						
405330097204801	11N 1E29BC 1	40 53 30	097 20 48	01	112SDGV	80-08-04	--	254	566
405343097093906	11N 2E26AD 6	40 53 43	097 09 39	06	112SDGV	80-08-04	--	117	635
			SHERMAN						
411452098472102	15N 13W27AB 2	41 14 52	098 47 21	02	121OGLL	79-10-10	--	200	493
					121OGLL	80-06-05	1735	200	612
					121OGLL	80-08-13	1600	200	735
411706098581001	15N 14W 7CA 1	41 17 06	098 58 10	01	121OGLL	79-10-10	--	150	510
					121OGLL	80-06-06	0920	150	555
					121OGLL	80-08-13	1315	150	540
			THAYER						
400037097371201	1N 3W35AC 1	40 00 37	097 37 12	01	112SDGV	80-08-21	1100	190	320
401436097232401	3N 1W11AD 1	40 14 36	097 23 24	01	112SDGV	80-08-21	1315	--	350
401238097354601	3N 3W24DA 1	40 12 38	097 35 46	01	112SDGV	80-08-21	1200	--	470

STATION NUMBER	DATE OF SAMPLE	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
NANCE											
412546097581901	80-07-22	7.1	15.0	--	290	0	95	12	7.9	.2	3.6
412520098020401	80-07-23	7.0	19.0	--	110	0	23	12	11	.5	8.2
412843098092001	80-07-21	7.7	17.0	--	250	0	83	10	7.7	.2	4.9
412539098080801	80-07-21	7.2	14.5	--	260	0	85	11	11	.3	7.0
412518098060601	80-07-21	7.3	15.0	--	280	0	90	13	17	.4	8.1
412622098104201	80-07-21	7.1	14.5	--	250	0	82	10	8.0	.2	5.0
412617098103501	80-07-21	7.2	15.0	--	250	0	85	10	7.1	.2	5.2
413125097492301	80-07-22	7.3	14.0	--	230	0	72	11	8.5	.2	5.6
412953097510701	80-07-23	7.2	14.5	--	240	0	76	12	8.3	.2	5.9
413032097525101	80-07-22	7.5	15.5	--	220	0	72	9.8	7.7	.2	3.7
412934097525901	80-07-23	7.3	15.0	--	230	0	74	10	8.6	.2	4.6
412908097525201	80-07-22	7.2	14.5	--	270	27	84	14	10	.3	6.9
412940098005501	80-07-21	7.5	16.0	--	210	0	69	9.7	9.1	.3	5.0
412901097581901	80-07-22	7.2	15.0	--	210	0	69	9.4	9.2	.3	4.6
NUCKOLLS											
400843097522601	80-08-20	7.4	17.0	--	260	38	85	11	20	.5	4.2
401458098035801	80-08-20	7.6	16.0	--	270	29	88	12	19	.5	3.5
401735098155201	80-08-20	7.1	25.0	--	25	6	77	13	15	4.0	4.9
PHELPS											
402136099130901	80-08-28	7.3	16.0	--	240	30	78	11	18	.5	9.8
402143099193301	80-08-27	7.4	15.0	--	250	8	78	13	15	.4	9.3
402155099284001	80-08-27	7.2	18.0	--	260	16	76	16	10	.3	10
402835099301401	80-08-28	7.3	15.0	--	300	88	98	13	9.7	.2	8.2
402835099293401	80-08-28	7.2	15.0	--	260	42	85	12	10	.3	8.8
403151099312001	80-08-28	7.3	17.0	--	360	150	120	15	32	.7	11
403151099283201	80-08-28	7.2	15.0	--	340	110	110	16	25	.6	10
403545099370101	80-08-28	7.4	16.5	--	340	130	110	15	13	.3	9.4
403145099381002	80-08-28	7.5	17.0	--	340	130	110	16	29	.7	10
POLK											
410434097471102	80-08-04	7.5	15.0	--	270	0	85	14	27	.7	7.4
411145097254601	80-08-04	7.4	14.0	--	230	18	73	11	19	.5	7.6
SALINE											
403902097064901	80-08-06	7.7	16.0	--	220	5	68	11	24	.7	4.9
SEWARD											
405330097204801	80-08-04	7.5	15.5	--	230	19	72	12	28	.8	5.7
405343097093906	80-08-04	7.4	13.0	--	240	52	77	12	37	1.0	7.7
SHERMAN											
411452098472102	79-10-10	7.2	14.0	--	250	8	81	11	6.5	.2	6.8
	80-06-05	7.1	14.0	--	280	20	89	14	11	.3	8.5
	80-08-13	7.3	14.5	--	320	16	100	16	17	.4	10
411706098581001	79-10-10	7.0	15.0	--	250	0	82	10	12	.3	7.7
	80-06-06	7.0	15.0	--	260	24	86	12	10	.3	7.1
	80-08-13	7.3	14.0	--	260	3	87	11	10	.3	6.9
THAYER											
400037097371201	80-08-21	7.5	17.0	--	120	13	43	3.9	14	.5	3.1
401436097232401	80-08-21	7.1	19.0	--	110	3	36	5.6	21	.9	4.7
401238097354601	80-08-21	7.4	15.0	--	170	8	54	8.0	25	.8	5.1

STATION NUMBER	DATE OF SAMPLE	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
NANCE											
412546097581901	80-07-22	290	16	4.5	.2	56	--	379	.52	--	2.2
412520098020401	80-07-23	120	18	3.5	.3	59	--	208	.28	--	.13
412843098092001	80-07-21	260	9.4	2.9	.2	60	--	340	.46	--	1.2
412539098080801	80-07-21	270	15	3.3	.4	58	--	359	.49	--	1.4
412518098060601	80-07-21	290	29	3.0	.3	63	--	404	.55	--	1.3
412622098104201	80-07-21	260	10	2.5	.3	58	--	337	.46	--	.99
412617098103501	80-07-21	270	7.2	2.2	.3	55	--	339	.46	--	.98
413125097492301	80-07-22	230	9.2	2.3	.3	50	--	305	.41	--	1.8
412953097510701	80-07-23	240	7.6	2.9	.3	53	--	338	.46	--	6.3
413032097525101	80-07-22	230	7.5	2.1	.3	53	--	304	.41	--	2.2
412934097525901	80-07-23	240	7.7	2.1	.2	59	--	314	.43	--	.88
412908097525201	80-07-22	240	13	1.4	.4	56	--	392	.53	--	14
412940098005501	80-07-21	230	9.3	1.9	.3	57	--	306	.42	--	1.4
412901097581901	80-07-22	230	7.6	1.7	.3	58	--	302	.41	--	.80
NUCKOLLS											
400843097522601	80-08-20	220	26	42	.3	49	--	384	.52	--	3.2
401458098035801	80-08-20	240	27	32	.4	44	--	379	.52	--	1.9
401735098155201	80-08-20	240	21	24	.4	44	--	346	.47	--	.62
PHELPS											
402136099130901	80-08-28	210	28	21	.2	45	--	358	.49	--	4.7
402143099193301	80-08-27	240	32	7.2	.2	59	--	365	.50	--	1.6
402155099284001	80-08-27	240	21	11	.3	59	--	363	.49	--	3.5
402835099301401	80-08-28	210	50	17	.2	48	--	403	.55	--	7.3
402835099293401	80-08-28	220	34	11	.2	56	--	363	.49	--	3.0
403151099312001	80-08-28	210	140	29	.2	50	--	544	.74	--	4.7
403151099283201	80-08-28	230	100	19	.2	47	--	496	.67	--	6.8
403545099370101	80-08-28	210	100	24	.2	51	--	465	.63	--	3.7
403145099381002	80-08-28	210	140	20	.2	52	--	520	.71	--	3.7
POLK											
410434097471102	80-08-04	270	29	9.5	.4	35	--	398	.54	--	6.4
411145097254601	80-08-04	210	35	9.3	.4	41	--	342	.47	--	4.3
SALINE											
403902097064901	80-08-06	210	50	11	.5	30	--	327	.44	--	.00
SEWARD											
405330097204801	80-08-04	210	31	13	.4	36	--	369	.50	--	10
405343097093906	80-08-04	190	96	6.1	.4	34	--	420	.57	--	8.1
SHERMAN											
411452098472102	79-10-10	240	17	3.9	.3	63	311	340	.42	--	1.3
	80-06-05	260	19	16	.2	63	--	383	.52	--	1.4
	80-08-13	300	23	30	.3	60	--	445	.61	--	1.9
411706098581001	79-10-10	250	18	4.1	.3	60	355	354	.48	--	2.1
	80-06-06	240	19	4.2	.3	62	--	352	.48	--	1.7
	80-08-13	260	21	4.2	.2	60	--	365	.50	--	2.0
THAYER											
400037097371201	80-08-21	110	15	15	.2	31	--	208	.28	--	3.7
401436097232401	80-08-21	110	27	8.8	.3	28	--	210	.29	--	2.8
401238097354601	80-08-21	160	27	20	.3	31	--	283	.38	--	3.8

STATION NUMBER	DATE OF SAMPLE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)
NANCE										
412546097581901	80-07-22	--	--	--	--	--	--	--	--	--
412520098020401	80-07-23	--	--	--	--	--	--	--	--	--
412843098092001	80-07-21	--	--	--	--	--	--	--	--	--
412539098080801	80-07-21	--	--	--	--	--	--	--	--	--
412518098060601	80-07-21	--	--	--	--	--	--	--	--	--
412622098104201	80-07-21	--	--	--	--	--	--	--	--	--
412617098103501	80-07-21	--	--	--	--	--	--	--	--	--
413125097492301	80-07-22	--	--	--	--	--	--	--	--	--
412953097510701	80-07-23	--	--	--	--	--	--	--	--	--
413032097525101	80-07-22	--	--	--	--	--	--	--	--	--
412934097525901	80-07-23	--	--	--	--	--	--	--	--	--
412908097525201	80-07-22	--	--	--	--	--	--	--	--	--
412940098005501	80-07-21	--	--	--	--	--	--	--	--	--
412901097581901	80-07-22	--	--	--	--	--	--	--	--	--
NUCKOLLS										
400843097522601	80-08-20	--	--	--	--	--	70	<10	<1	--
401458098035801	80-08-20	--	--	--	--	--	70	<10	<1	--
401735098155201	80-08-20	--	--	--	--	--	70	10	5	--
PHELPS										
402136099130901	80-08-28	--	--	--	--	--	50	10	<1	--
402143099193301	80-08-27	--	--	--	--	--	80	<10	5	--
402155099284001	80-08-27	--	--	--	--	--	60	10	2	--
402835099301401	80-08-28	--	--	--	--	--	90	10	3	--
402835099293401	80-08-28	--	--	--	--	--	50	<10	<1	--
403151099312001	80-08-28	--	--	--	--	--	70	<10	<1	--
403151099283201	80-08-28	--	--	--	--	--	60	90	4	--
403545099370101	80-08-28	--	--	--	--	--	40	<10	<1	--
403145099381002	80-08-28	--	--	--	--	--	80	10	1	--
POLK										
410434097471102	80-08-04	--	--	--	--	--	80	<10	6	--
411145097254601	80-08-04	--	--	--	--	--	90	<10	1	--
SALINE										
403902097064901	80-08-06	--	--	--	--	--	110	380	460	--
SEWARD										
405330097204801	80-08-04	--	--	--	--	--	70	<10	10	--
405343097093906	80-08-04	--	--	--	--	--	80	<10	2	--
SHERMAN										
411452098472102	79-10-10	--	--	--	--	.020	--	--	--	--
	80-06-05	--	--	--	--	--	--	--	--	--
	80-08-13	--	--	--	--	--	--	--	--	--
411706098581001	79-10-10	--	--	--	--	050	--	--	--	--
	80-06-06	--	--	--	--	--	--	--	--	--
	80-08-13	--	--	--	--	--	--	--	--	--
THAYER										
400037097371201	80-08-21	--	--	--	--	--	40	<10	<1	--
401436097232401	80-08-21	--	--	--	--	--	50	70	2	--
401238097354601	80-08-21	--	--	--	--	--	50	<10	<1	--

STATION NUMBER	LOCAL IDENT- I- FIER	LAT- I- TUDE	LONG- I- TUDE	SEQ. NO.	GEO- LOGIC UNIT	DATE OF SAMPLE	TIME	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)
THAYER									
401857097484801	4N 4W18BD 1	40 18 57	097 48 48	01	112SDGV	80-08-19	1300	--	335
WEBSTER									
400832098233901	2N 10W13AC 1	40 08 32	098 23 39	01	112SDGV	80-08-29	--	158	381
400844098371301	2N 12W13AB 1	40 08 44	098 37 13	01	112SDGV	80-08-26	1700	160	507
401207098352201	3N 11W29BO 1	40 12 07	098 35 22	01	112SDGV	80-08-26	1500	162	568
401906098354803	4N 11W18AA 3	40 19 06	098 35 48	03	112SDGV	80-08-20	1415	168	583
WHEELER									
414506098285901	21N 10W33BD 1	41 45 06	098 28 59	01	121OGLL	80-08-08	0810	273	258
415300098323901	22N 11W13BO 1	41 53 00	098 32 39	01	112SDHL	80-08-08	1620	279	200
415900098212801	23N 9W 9AD 1	41 59 00	098 21 28	01	112SDHL	80-08-07	1920	281	175
415839098442001	23N 12W 8CO 1	41 58 39	098 44 20	01	112SDHL	80-08-07	1440	178	175
420445098301701	24N 10W 5CO 1	42 04 45	098 30 17	01	112SDHL	80-08-08	1015	135	140
420418098405001	24N 12W11BO 1	42 04 18	098 40 50	01	121OGLL	80-08-07	1830	325	175
YORK									
404646097485101	9N 4W 6AC 1	40 46 46	097 48 51	01	112SDGV	80-08-05	--	171	530
405242097352402	11N 2W31CA 2	40 52 42	097 35 24	02	112SDGV	80-08-05	--	348	555
410137097241302	12N 1W11BC 2	41 01 37	097 24 13	02	112SDGV	80-08-04	--	156	569

STATION NUMBER	DATE OF SAMPLE	PH FIELD (UNITS) (00400)	TEMPER- ATURE, WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
THAYER											
401857097484801	80-08-19	7.4	15.0	--	130	3	43	6.1	13	.5	4.6
WEBSTER											
400832098233901	80-08-29	7.2	13.0	--	170	10	56	7.4	13	.4	5.2
400844098371301	80-08-26	7.3	14.0	--	220	38	69	11	18	.5	7.8
401207098352201	80-08-26	7.2	15.0	--	270	35	88	11	15	.4	5.6
401906098354803	80-08-20	7.3	16.0	--	260	43	87	11	12	.3	5.6
WHEELER											
414506098285901	80-08-08	7.7	14.0	--	110	0	34	5.8	5.8	.2	7.7
415300098323901	80-08-08	7.5	14.0	--	79	0	25	4.1	5.6	.3	4.9
415900098212801	80-08-07	7.7	14.0	--	74	0	23	4.0	5.1	.3	3.8
415839098442001	80-08-07	7.6	14.0	--	65	14	20	3.7	6.6	.4	3.6
420445098301701	80-08-08	7.7	14.0	--	54	0	18	2.3	5.0	.3	4.0
420418098405001	80-08-07	7.9	14.0	--	69	0	22	3.3	4.8	.3	3.9
YORK											
404646097485101	80-08-05	7.5	14.0	--	220	38	69	11	20	.6	5.8
405242097352402	80-08-05	7.2	14.0	--	210	0	66	11	27	.8	5.5
410137097241302	80-08-04	7.4	14.5	--	240	0	76	11	23	.7	5.7

STATION NUMBER	DATE OF SAMPLE	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)
					THAYER						
401857097484801	80-08-19	130	14	9.3	.2	37	--	212	.29	--	1.4
					WEBSTER						
400832098233901	80-08-29	160	16	9.6	.2	36	--	254	.35	--	3.3
400844098371301	80-08-26	180	49	14	.2	33	--	319	.43	--	2.0
401207098352201	80-08-26	230	34	13	.2	45	--	367	.50	--	3.9
401906098354803	80-08-20	220	27	32	.3	40	--	360	.49	--	2.9
					WHEELER						
414506098285901	80-08-08	120	.6	.6	.3	44	--	173	.24	--	.37
415300098323901	80-08-08	92	.2	.6	.3	45	--	149	.20	--	1.7
415900098212801	80-08-07	75	2.8	.6	.2	46	--	141	.19	--	2.4
415839098442001	80-08-07	51	3.8	2.8	.2	42	--	147	.20	--	7.6
420445098301701	80-08-08	67	.6	.5	.3	52	--	127	.17	--	.77
420418098405001	80-08-07	75	1.1	1.4	.3	59	--	145	.20	--	1.0
					YORK						
404646097485101	80-08-05	180	32	17	.5	32	--	318	.43	--	5.0
405242097352402	80-08-05	210	36	13	.5	37	--	325	.44	--	.53
410137097241302	80-08-04	240	21	8.6	.4	40	--	349	.47	--	4.2

STATION NUMBER	DATE OF SAMPLE	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, DISSOLVED (MG/L AS P) (00666)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)
					THAYER					
401857097484801	80-08-19	--	--	--	--	--	40	<10	1	--
					WEBSTER					
400832098233901	80-08-29	--	--	--	--	--	50	<10	4	--
400844098371301	80-08-26	--	--	--	--	--	60	<10	<1	--
401207098352201	80-08-26	--	--	--	--	--	80	<10	1	--
401906098354803	80-08-20	--	--	--	--	--	50	20	<1	--
					WHEELER					
414506098285901	80-08-08	--	--	--	--	--	140	140	130	--
415300098323901	80-08-08	--	--	--	--	--	130	90	4	--
415900098212801	80-08-07	--	--	--	--	--	130	<10	<1	--
415839098442001	80-08-07	--	--	--	--	--	130	<10	<1	--
420445098301701	80-08-08	--	--	--	--	--	120	30	8	--
420418098405001	80-08-07	--	--	--	--	--	130	<10	10	--
					YORK					
404646097485101	80-08-05	--	--	--	--	--	60	<10	1	--
405242097352402	80-08-05	--	--	--	--	--	100	160	160	--
410137097241302	80-08-04	--	--	--	--	--	70	<10	1	--

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October 1, 1978

FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	2.54×10^{1}	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^{0}	kilometers (km)
	Area	
acres	4.047×10^{3}	square meters (m^2)
	4.047×10^{-1}	square hectometers (hm^2)
	4.047×10^{-3}	square kilometers (km^2)
square miles (mi^2)	2.590×10^{0}	square kilometers (km^2)
	Volume	
gallons (gal)	3.785×10^{0}	liters (L)
	3.785×10^{0}	cubic decimeters (dm^3)
	3.785×10^{-3}	cubic meters (m^3)
million gallons	3.785×10^{3}	cubic meters (m^3)
	3.785×10^{-3}	cubic hectometers (hm^3)
cubic feet (ft^3)	2.832×10^{1}	cubic decimeters (dm^3)
	2.832×10^{-2}	cubic meters (m^3)
cfs-days	2.447×10^{3}	cubic meters (m^3)
	2.447×10^{-3}	cubic hectometers (hm^3)
acre-feet (acre-ft)	1.233×10^{3}	cubic meters (m^3)
	1.233×10^{-3}	cubic hectometers (hm^3)
	1.233×10^{-6}	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	2.832×10^{1}	liters per second (L/s)
	2.832×10^{1}	cubic decimeters per second (dm^3/s)
	2.832×10^{-2}	cubic meters per second (m^3/s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm^3/s)
	6.309×10^{-5}	cubic meters per second (m^3/s)
million gallons per day	4.381×10^{1}	cubic decimeters per second (dm^3/s)
	4.381×10^{-2}	cubic meters per second (m^3/s)
	Mass	
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

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